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OM protein - protein search, using sw model

Run on: January 20, 2006, 14:50:54 ; Search time 59.6445 Seconds
(without alignments)
4336.296 Million cell updates/sec

Title: US-10-849-814-12
Perfect score: 3321
Sequence: 1 MKNTISCLTALLSASQLHA.....QRIFHDVNNATYIEFSVLKD 619

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1867569 seqs, 417829326 residues

Total number of hits satisfying chosen parameters: 1867569

Minimum DB seq length: 0
Maximum DB seq length: 2000000000
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published Applications_AA_Main:
1: /cgn2_6/prodata/1/pubpaa/US07_PUBCOMB.pep.*
2: /cgn2_6/prodata/1/pubpaa/US08_PUBCOMB.pep.*
3: /cgn2_6/prodata/1/pubpaa/US09_PUBCOMB.pep.*
4: /cgn2_6/prodata/1/pubpaa/US10A_PUBCOMB.pep.*
5: /cgn2_6/prodata/1/pubpaa/US10B_PUBCOMB.pep.*
6: /cgn2_6/prodata/1/pubpaa/US11_PUBCOMB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Score | Query Match | Length | ID | Description |
|------------|--------|-------------|--------|-------------------|-------------------|
| 1 | 3321 | 100.0 | 619 | US-10-763-179-12 | Sequence 12, Appl |
| 2 | 3321 | 100.0 | 619 | US-10-849-814-12 | Sequence 12, Appl |
| 3 | 3321 | 100.0 | 619 | US-10-855-533-12 | Sequence 12, Appl |
| 4 | 3321 | 100.0 | 619 | US-10-859-405-12 | Sequence 12, Appl |
| 5 | 3321 | 100.0 | 619 | US-10-876-673-12 | Sequence 12, Appl |
| 6 | 3321 | 100.0 | 619 | US-11-050-829-20 | Sequence 20, Appl |
| 7 | 2198.5 | 66.2 | 616 | US-10-763-179-6 | Sequence 6, Appl |
| 8 | 2198.5 | 66.2 | 616 | US-10-849-814-6 | Sequence 6, Appl |
| 9 | 2198.5 | 66.2 | 616 | US-10-855-533-6 | Sequence 6, Appl |
| 10 | 2198.5 | 66.2 | 616 | US-10-859-405-6 | Sequence 6, Appl |
| 11 | 2198.5 | 66.2 | 616 | US-10-876-673-6 | Sequence 6, Appl |
| 12 | 2198.5 | 66.2 | 616 | US-11-050-829-14 | Sequence 14, Appl |
| 13 | 2198.5 | 66.2 | 616 | US-11-085-578-12 | Sequence 12, Appl |
| 14 | 2187.5 | 65.9 | 594 | US-11-085-576-3 | Sequence 3, Appl |
| 15 | 2081 | 62.7 | 625 | US-10-763-179-18 | Sequence 18, Appl |
| 16 | 2081 | 62.7 | 625 | US-10-855-533-18 | Sequence 18, Appl |
| 17 | 2081 | 62.7 | 625 | US-10-876-673-18 | Sequence 18, Appl |
| 18 | 1618 | 48.7 | 645 | US-10-763-179-23 | Sequence 23, Appl |
| 19 | 1618 | 48.7 | 645 | US-10-855-533-23 | Sequence 23, Appl |
| 20 | 1618 | 48.7 | 645 | US-10-876-673-23 | Sequence 23, Appl |
| 21 | 1402.5 | 42.2 | 644 | US-10-763-179-27 | Sequence 27, Appl |
| 22 | 1402.5 | 42.2 | 644 | US-10-855-533-27 | Sequence 27, Appl |
| 23 | 1402.5 | 42.2 | 644 | US-10-876-673-27 | Sequence 27, Appl |
| 24 | 1402 | 42.2 | 620 | US-10-763-179-25 | Sequence 25, Appl |
| 25 | 1402 | 42.2 | 620 | US-10-855-533-25 | Sequence 25, Appl |
| 26 | 1402 | 42.2 | 620 | US-10-876-673-25 | Sequence 25, Appl |
| 27 | 356 | 10.7 | 549 | US-10-482-706-197 | Sequence 197, App |

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|----|-------|-----|------|---|----------------------|---------------------|
| 28 | 272.5 | 8.2 | 684 | 4 | US-10-156-761-12397 | Sequence 12397, A |
| 29 | 204.5 | 6.2 | 676 | 4 | US-10-156-761-9213 | Sequence 9213, Ap |
| 30 | 190.5 | 5.7 | 522 | 4 | US-10-156-761-9497 | Sequence 9497, Ap |
| 31 | 145 | 4.4 | 770 | 4 | US-10-424-599-187559 | Sequence 187559, Ap |
| 32 | 139 | 4.2 | 649 | 3 | US-09-252-088-33 | Sequence 33, Appl |
| 33 | 139 | 4.2 | 649 | 3 | US-10-340-792-33 | Sequence 33, Appl |
| 34 | 137.5 | 4.1 | 1781 | 3 | US-09-995-749A-2 | Sequence 2, Appl |
| 35 | 135 | 4.1 | 886 | 3 | US-09-769-787-186 | Sequence 126, App |
| 36 | 135 | 4.1 | 893 | 5 | US-10-472-928-776 | Sequence 776, App |
| 37 | 134.5 | 4.0 | 864 | 4 | US-10-156-761-12878 | Sequence 12878, A |
| 38 | 133 | 4.0 | 778 | 5 | US-10-617-320-5143 | Sequence 5143, Ap |
| 39 | 130 | 3.9 | 757 | 5 | US-10-472-928-1734 | Sequence 1734, Ap |
| 40 | 126 | 3.8 | 690 | 3 | US-09-815-242-12460 | Sequence 12460, A |
| 41 | 126 | 3.8 | 703 | 3 | US-09-815-242-5610 | Sequence 5610, Ap |
| 42 | 126 | 3.8 | 4326 | 5 | US-10-831-070-18 | Sequence 18, Appl |
| 43 | 125 | 3.8 | 575 | 4 | US-10-425-115-188553 | Sequence 188553, Ap |
| 44 | 122.5 | 3.7 | 1777 | 5 | US-10-484-218-12 | Sequence 12, Appl |
| 45 | 122 | 3.7 | 1048 | 4 | US-10-369-493-22301 | Sequence 22301, A |

ALIGNMENTS

RESULT 1
US-10-763-179-12
; Sequence 12, Application US/10763179
; Publication No. US20040204577A1
; GENERAL INFORMATION:
; APPLICANT: HARA, SEIICHI
; APPLICANT: YOKOZAKI, KENZO
; APPLICANT: ABE, ISAO
; APPLICANT: TONOUCHI, NAOTO
; APPLICANT: JOJIMA, YASUO
; TITLE OF INVENTION: NOVEL PEPTIDE-FORMING ENZYME GENES
; FILE REFERENCE: 247848US0
; CURRENT APPLICATION NUMBER: US/10763,179
; CURRENT FILING DATE: 2004-01-26
; PRIOR APPLICATION NUMBER: JP 2003-16765
; PRIOR FILING DATE: 2003-01-24
; PRIOR APPLICATION NUMBER: US 60/491,612
; PRIOR FILING DATE: 2003-08-01
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: Patentin version 3.1
; SEQ ID NO 12
; LENGTH: 619
; TYPE: PRT
; ORGANISM: Sphingobacterium sp.
US-10-763-179-12

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| Query Match | 100.0%; | Score 3321; | DB 4; | Length 619; |
| Best Local Similarity | 100.0%; | Pred. No. 3.2e-260; | | |
| Matches 619; | Conservative 0; | Mismatches 0; | Indels 0; | Gaps 0; |
| QY | 1 | MKNTISCLTALLSASQLHAQTAADSAYRDHYEKTEVAIPMRDGGKLTATYSPKDKSK | 60 | |
| Db | 1 | MKNTISCLTALLSASQLHAQTAADSAYRDHYEKTEVAIPMRDGGKLTATYSPKDKSK | 60 | |
| QY | 61 | KYPVLLNTPYTVSPYQNEYKKSIGNPQMMREGIVFYQDVRGKWMSEGDFEDIRPTT | 120 | |
| Db | 61 | KYPVLLNTPYTVSPYQNEYKKSIGNPQMMREGIVFYQDVRGKWMSEGDFEDIRPTT | 120 | |
| QY | 121 | YSKDKKKAIDESTDYYDALEWLQKLNKYNKAGLGYISYPGYSTVGLVKTHPSLKAVSP | 180 | |
| Db | 121 | YSKDKKKAIDESTDYYDALEWLQKLNKYNKAGLGYISYPGYSTVGLVKTHPSLKAVSP | 180 | |
| QY | 181 | QAPVTDWYIGDDFHNGVLFLODAFTFMSTFGVPRPKPTTPDQFKGKIQIKKADKNPFA | 240 | |
| Db | 181 | QAPVTDWYIGDDFHNGVLFLODAFTFMSTFGVPRPKPTTPDQFKGKIQIKKADKNPFA | 240 | |
| QY | 241 | EAGTARELKEKYPGDSVOFMDLFXHPDYYDDFWKSRVITNSLOEVKPAVMVVGFFDAED | 300 | |
| Db | 241 | EAGTARELKEKYPGDSVOFMDLFXHPDYYDDFWKSRVITNSLOEVKPAVMVVGFFDAED | 300 | |

QY 301 AYGTFTYQSIEDSKSKNNLSILVAGPWYHGWVRAEGNYLGDIOPEKKTSTITYQSFQRP 360
Db 301 AYGTFTYQSIEDSKSKNNLSILVAGPWYHGWVRAEGNYLGDIOPEKKTSTITYQSFQRP 360
QY 361 FFYYLKDGNFAPSEANI FVSGSNEMKHFQWPPKKNVETKKLYPQPGKLGFDKVRQTD 420
Db 361 FFYYLKDGNFAPSEANI FVSGSNEMKHFQWPPKKNVETKKLYPQPGKLGFDKVRQTD 420
QY 421 SWDEVYTDPNKVPVPHQGGVIONRTREYMVDORFAASRPDMVYQTEPLTDLITLVGPIK 480
Db 421 SWDEVYTDPNKVPVPHQGGVIONRTREYMVDORFAASRPDMVYQTEPLTDLITLVGPIK 480
QY 481 NFLKVSSTGTADYVVKLIDVYPNDAASYQCKTMAGYQMMVRGEIMAGKYRNGFDKAQAL 540
Db 481 NFLKVSSTGTADYVVKLIDVYPNDAASYQCKTMAGYQMMVRGEIMAGKYRNGFDKAQAL 540
QY 541 TPGMVEKVNFPMPDVAHTFKKGHRIMVQVQNSWFFPLAERNPQVFLAPYTATKADFRKATQ 600
Db 541 TPGMVEKVNFPMPDVAHTFKKGHRIMVQVQNSWFFPLAERNPQVFLAPYTATKADFRKATQ 600
QY 601 RIFHDVNNATYIEFSVLKD 619
Db 601 RIFHDVNNATYIEFSVLKD 619

RESULT 2

US-10-849-814-12
; Sequence 12, Application US/10849814
; Publication No. US20040219631A1
; GENERAL INFORMATION:
; APPLICANT: YOKOZEKI, KENZO
; APPLICANT: SUZUKI, SONOKO
; APPLICANT: HARA, SEIICHI
; APPLICANT: ABE, ISAO
; TITLE OF INVENTION: METHOD FOR PRODUCING TRIPEPTIDES AND/OR PEPTIDES LONGER THAN TRIP
; CURRENT APPLICATION NUMBER: US/10/849,814
; CURRENT FILING DATE: 2004-05-21
; PRIOR APPLICATION NUMBER: PCT/JP03/09466
; PRIOR FILING DATE: 2003-07-25
; PRIOR APPLICATION NUMBER: JP 2002-218958
; PRIOR FILING DATE: 2002-07-26
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 12
; LENGTH: 619
; TYPE: PRT
; ORGANISM: Sphingobacterium sp.
US-10-849-814-12

Query Match 100.0%; Score 3321; DB 5; Length 619;
Best Local Similarity 100.0%; Pred. No. 3.2e-260;
Matches 619; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKNTISCLTALLSASQLHAQTAADSAYVRDHYEKTEVAIPMRDGKLFYAIYSPKDKSK 60
Db 1 MKNTISCLTALLSASQLHAQTAADSAYVRDHYEKTEVAIPMRDGKLFYAIYSPKDKSK 60
QY 61 KYPVLLNRTPTVTSYQNEYKKSIGNFPQWMREGYIFVYQDVRGKMWSEGDIEDIRPTT 120
Db 61 KYPVLLNRTPTVTSYQNEYKKSIGNFPQWMREGYIFVYQDVRGKMWSEGDIEDIRPTT 120
QY 121 YSKDKKAIDESTDITDALEWLQKLNKYNAGKAGLYGISYPGFYSTVGLVKTSPSLKAVSP 180
Db 121 YSKDKKAIDESTDITDALEWLQKLNKYNAGKAGLYGISYPGFYSTVGLVKTSPSLKAVSP 180
QY 181 QAPVTDWYIGDDFHNGVLFLODAFTFMSTFGVPRPKPITPDQFKGKIQIKEADKYNFFA 240
Db 181 QAPVTDWYIGDDFHNGVLFLODAFTFMSTFGVPRPKPITPDQFKGKIQIKEADKYNFFA 240
QY 241 EAGTARELKEYFGDSVQFWDNLFKHPDYDDFWKSRVITNSLQEVKPAVMVVGFFDAED 300
Db 241 EAGTARELKEYFGDSVQFWDNLFKHPDYDDFWKSRVITNSLQEVKPAVMVVGFFDAED 300

QY 301 AYGTFTYQSIEDSKSKNNLSILVAGPWYHGWVRAEGNYLGDIOPEKKTSTITYQSFQRP 360
Db 301 AYGTFTYQSIEDSKSKNNLSILVAGPWYHGWVRAEGNYLGDIOPEKKTSTITYQSFQRP 360
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Db 361 FFYYLKDGNFAPSEANI FVSGSNEMKHFQWPPKKNVETKKLYPQPGKLGFDKVRQTD 420
QY 421 SWDEVYTDPNKVPVPHQGGVIONRTREYMVDORFAASRPDMVYQTEPLTDLITLVGPIK 480
Db 421 SWDEVYTDPNKVPVPHQGGVIONRTREYMVDORFAASRPDMVYQTEPLTDLITLVGPIK 480
QY 481 NFLKVSSTGTADYVVKLIDVYPNDAASYQCKTMAGYQMMVRGEIMAGKYRNGFDKAQAL 540
Db 481 NFLKVSSTGTADYVVKLIDVYPNDAASYQCKTMAGYQMMVRGEIMAGKYRNGFDKAQAL 540
QY 541 TPGMVEKVNFPMPDVAHTFKKGHRIMVQVQNSWFFPLAERNPQVFLAPYTATKADFRKATQ 600
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QY 601 RIFHDVNNATYIEFSVLKD 619
Db 601 RIFHDVNNATYIEFSVLKD 619

RESULT 3

US-10-855-533-12
; Sequence 12, Application US/10855533
; Publication No. US20050019864A1
; GENERAL INFORMATION:
; APPLICANT: HARA, SEIICHI
; APPLICANT: YOKOZEKI, KENZO
; APPLICANT: ABE, ISAO
; APPLICANT: TONOUCHI, NAOTO
; APPLICANT: JOJIMA, YASUOKO
; TITLE OF INVENTION: NOVEL PEPTIDE-FORMING ENZYME GENES
; FILE REFERENCE: 253783US0
; CURRENT APPLICATION NUMBER: US/10/855,533
; CURRENT FILING DATE: 2004-05-28
; PRIOR APPLICATION NUMBER: PCT/JP03/09468
; PRIOR FILING DATE: 2003-07-25
; PRIOR APPLICATION NUMBER: JP 2002-218957
; PRIOR FILING DATE: 2002-07-26
; PRIOR APPLICATION NUMBER: JP 2003-16765
; PRIOR FILING DATE: 2003-01-24
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 12
; LENGTH: 619
; TYPE: PRT
; ORGANISM: Sphingobacterium sp.
US-10-855-533-12

Query Match 100.0%; Score 3321; DB 5; Length 619;
Best Local Similarity 100.0%; Pred. No. 3.2e-260;
Matches 619; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db 1 MKNTISCLTALLSASQLHAQTAADSAYVRDHYEKTEVAIPMRDGKLFYAIYSPKDKSK 60
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Db 61 KYPVLLNRTPTVTSYQNEYKKSIGNFPQWMREGYIFVYQDVRGKMWSEGDIEDIRPTT 120
QY 121 YSKDKKAIDESTDITDALEWLQKLNKYNAGKAGLYGISYPGFYSTVGLVKTSPSLKAVSP 180
Db 121 YSKDKKAIDESTDITDALEWLQKLNKYNAGKAGLYGISYPGFYSTVGLVKTSPSLKAVSP 180
QY 181 QAPVTDWYIGDDFHNGVLFLODAFTFMSTFGVPRPKPITPDQFKGKIQIKEADKYNFFA 240
Db 181 QAPVTDWYIGDDFHNGVLFLODAFTFMSTFGVPRPKPITPDQFKGKIQIKEADKYNFFA 240

Db 61 KYPVLLNRTPTVTSYQNEYYKSLGNFPQMMREGYIFVYQDVRGKMWSEGDFFEDIRPTT 120
QY 121 YSKDKKAIDESTDTYDALEWLQKLNKNYNGKAGLYGISYPGFYSTVGLVKTHTPSLKAVSP 180
Db 121 YSKDKKAIDESTDTYDALEWLQKLNKNYNGKAGLYGISYPGFYSTVGLVKTHTPSLKAVSP 180
QY 181 QAPVTDWYIGDDFHNGVLFLODAFTFMSTFGVPRPKPITPDQFKGKIQIKEADKYNFFA 240
Db 181 QAPVTDWYIGDDFHNGVLFLODAFTFMSTFGVPRPKPITPDQFKGKIQIKEADKYNFFA 240
QY 241 EAGTARELKEKYFGDSVQFVNDLFKHPDYDDDFWKSRTVITNSLQEVKPAVMVVGFFDAED 300
Db 241 EAGTARELKEKYFGDSVQFVNDLFKHPDYDDDFWKSRTVITNSLQEVKPAVMVVGFFDAED 300
QY 301 AYGTFTKYQSIQEDSKSKNNSILVAGPWYHGGWVRAEGNYLGDIOFEKKTSTITYQEQFQEP 360
Db 301 AYGTFTKYQSIQEDSKSKNNSILVAGPWYHGGWVRAEGNYLGDIOFEKKTSTITYQEQFQEP 360
QY 361 PFKYLLKDEGNFAPSEANI FVSGSNEWKHFEQWPPKPVETKKLYFPQOGKLGFDKQVQRTD 420
Db 361 PFKYLLKDEGNFAPSEANI FVSGSNEWKHFEQWPPKPVETKKLYFPQOGKLGFDKQVQRTD 420
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Db 421 SWDEVYVTDPNKPVPHQGGVIONRTREYVMDQDFAASRPDMVYQTEPLTDLTIVGPIK 480
QY 481 NFLKVSSTGTADYVVKLIDVYPNDAASYQCKTMAGYQMVYRGEIMAGKYRNGFDKAQAL 540
Db 481 NFLKVSSTGTADYVVKLIDVYPNDAASYQCKTMAGYQMVYRGEIMAGKYRNGFDKAQAL 540
QY 541 TPGMVEKYNFEMPVVAHTFKKHRIIMVQVQNSWFFPLAERNQVFLAPYTATKADFRKATQ 600
Db 541 TPGMVEKYNFEMPVVAHTFKKHRIIMVQVQNSWFFPLAERNQVFLAPYTATKADFRKATQ 600
QY 601 RIFHDVNNATYIEFSVLKD 619
Db 601 RIFHDVNNATYIEFSVLKD 619

RESULT 6
US-11-050-829-20
; Sequence 20, Application US/11050829
; Publication No. US20050176150A1
; GENERAL INFORMATION:
; APPLICANT: KIRA, IKUO
; APPLICANT: YOKOZEKI, KENZO
; APPLICANT: SONOKI, SONOKI
; APPLICANT: MIHARA, YASUHIRO
; APPLICANT: HIRAO, YOSHINORI
; TITLE OF INVENTION: MUTANT MICROORGANISM AND METHOD FOR PRODUCING PEPTIDE USING THE
; TITLE OF INVENTION: SAME
; FILE REFERENCE: 265063USO
; CURRENT APPLICATION NUMBER: US/11/050,829
; CURRENT FILING DATE: 2005-02-07
; PRIOR APPLICATION NUMBER: US 60/617,060
; PRIOR FILING DATE: 2004-10-12
; PRIOR APPLICATION NUMBER: JP 2004-029844
; PRIOR FILING DATE: 2004-02-05
; NUMBER OF SEQ ID NOS: 22
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 20
; LENGTH: 619
; TYPE: PRT
; ORGANISM: Sphingobacterium sp.
US-11-050-829-20

Query Match 100.0%; Score 3321; DB 6; Length 619;
Best Local Similarity 100.0%; Pred.No.3.2e-260;
Matches 619; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MKNTISCITLALLSASQLHAQTAADSAYVRDHYEKTEVAIPMRDGGKLFITAIYSPKDKSK 60
Db 1 MKNTISCITLALLSASQLHAQTAADSAYVRDHYEKTEVAIPMRDGGKLFITAIYSPKDKSK 60

QY 61 KYPVLLNRTPTVTSYQNEYYKSLGNFPQMMREGYIFVYQDVRGKMWSEGDFFEDIRPTT 120
Db 61 KYPVLLNRTPTVTSYQNEYYKSLGNFPQMMREGYIFVYQDVRGKMWSEGDFFEDIRPTT 120
QY 121 YSKDKKAIDESTDTYDALEWLQKLNKNYNGKAGLYGISYPGFYSTVGLVKTHTPSLKAVSP 180
Db 121 YSKDKKAIDESTDTYDALEWLQKLNKNYNGKAGLYGISYPGFYSTVGLVKTHTPSLKAVSP 180
QY 181 QAPVTDWYIGDDFHNGVLFLODAFTFMSTFGVPRPKPITPDQFKGKIQIKEADKYNFFA 240
Db 181 QAPVTDWYIGDDFHNGVLFLODAFTFMSTFGVPRPKPITPDQFKGKIQIKEADKYNFFA 240
QY 241 EAGTARELKEKYFGDSVQFVNDLFKHPDYDDDFWKSRTVITNSLQEVKPAVMVVGFFDAED 300
Db 241 EAGTARELKEKYFGDSVQFVNDLFKHPDYDDDFWKSRTVITNSLQEVKPAVMVVGFFDAED 300
QY 301 AYGTFTKYQSIQEDSKSKNNSILVAGPWYHGGWVRAEGNYLGDIOFEKKTSTITYQEQFQEP 360
Db 301 AYGTFTKYQSIQEDSKSKNNSILVAGPWYHGGWVRAEGNYLGDIOFEKKTSTITYQEQFQEP 360
QY 361 PFKYLLKDEGNFAPSEANI FVSGSNEWKHFEQWPPKPVETKKLYFPQOGKLGFDKQVQRTD 420
Db 361 PFKYLLKDEGNFAPSEANI FVSGSNEWKHFEQWPPKPVETKKLYFPQOGKLGFDKQVQRTD 420
QY 421 SWDEVYVTDPNKPVPHQGGVIONRTREYVMDQDFAASRPDMVYQTEPLTDLTIVGPIK 480
Db 421 SWDEVYVTDPNKPVPHQGGVIONRTREYVMDQDFAASRPDMVYQTEPLTDLTIVGPIK 480
QY 481 NFLKVSSTGTADYVVKLIDVYPNDAASYQCKTMAGYQMVYRGEIMAGKYRNGFDKAQAL 540
Db 481 NFLKVSSTGTADYVVKLIDVYPNDAASYQCKTMAGYQMVYRGEIMAGKYRNGFDKAQAL 540
QY 541 TPGMVEKYNFEMPVVAHTFKKHRIIMVQVQNSWFFPLAERNQVFLAPYTATKADFRKATQ 600
Db 541 TPGMVEKYNFEMPVVAHTFKKHRIIMVQVQNSWFFPLAERNQVFLAPYTATKADFRKATQ 600
QY 601 RIFHDVNNATYIEFSVLKD 619
Db 601 RIFHDVNNATYIEFSVLKD 619

RESULT 7
US-10-763-179-6
; Sequence 6, Application US/10763179
; Publication No. US20040204577A1
; GENERAL INFORMATION:
; APPLICANT: HARA, SEIICHI
; APPLICANT: YOKOZEKI, KENZO
; APPLICANT: ABE, ISAO
; APPLICANT: TONOUCHI, NAOTO
; APPLICANT: JOJIMA, YASUKO
; TITLE OF INVENTION: NOVEL PEPTIDE-FORMING ENZYME GENES
; FILE REFERENCE: 247848USO
; CURRENT APPLICATION NUMBER: US/10/763,179
; CURRENT FILING DATE: 2004-01-26
; PRIOR APPLICATION NUMBER: JP 2003-16765
; PRIOR FILING DATE: 2003-01-24
; PRIOR APPLICATION NUMBER: US 60/491,612
; PRIOR FILING DATE: 2003-08-01
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 6
; LENGTH: 616
; TYPE: PRT
; ORGANISM: Empedobacter brevis
US-10-763-179-6

Query Match 66.2%; Score 2198.5; DB 4; Length 616;
Best Local Similarity 64.3%; Pred.No.3.3e-169;
Matches 395; Conservative 85; Mismatches 129; Indels 5; Gaps 2;
QY 5 ISCLTALLSASQLHAQTAADSAYVRDHYEKTEVAIPMRDGGKLFITAIYSPKDKSKYPV 64

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Qy      65 LLNRPTVTVSPYQNEKKSLGNFPQMMREGYIFVYQDVRGKWMSEGDPEFDRPTTYSKD 124
Db      68 LLNRPTVTVAPYGVNEYKSLGNFPTEMEGEFIFVYQDVRGKWMSEGEFEDVRPINPSKS 127
Qy     125 KKAIDESTDYDALEWLQNLKNYNGKAGLYGISYPGFYSTVGLVKTHPSLKAVSQAPV 184
Db     128 KKAIDESTDTFTLEWLAKNLKNYTKAGIYISYPGFYSTVGLVSHPSLKAVSQAPV 187
Qy     185 TDWYLGDDPHNGVLFLODAFTFMSTFGVPRKPTTPDQFKGIQIKKADKKNFABAGT 244
Db     188 TNWFLGDDPHNGVLFNDSPFMTFFGVKRPQPTIPDKGPRFEPYPIKONTYRFA-SGS 246
Qy     245 ARELKEKYFGDSVQFQWDLFKHPDYDDFWKSRVITNSLQEVKPAVMVVGPFDAEDAYGT 304
Db     247 VKELKDKYLQDNIKFYNDLFAHPDYDQFWDNRVLPHTNVQPAVMVVGPFDAEDVYGA 306
Qy     305 FPTYQSIEDKSKNNNSILVAGPWYHGGWVRAGNYLGDIOFEKKTSTITYQEOFPFFKY 364
Db     307 FETYKAIEKQNPKATNIMVAGFWHGGWVRSGSTFGDMQFASNTSEHYQOEIELPFNY 366
Qy     365 YLKDSGNFAPSANI FVSGSNWKHFQWPKNVETKLYFQOQKLGFDKQVOTDSWDE 424
Db     367 YLKDKGNFKPTEATFITGSNEWKQFDAMPKPNVTQKIYLOQNGKIAFNKNTTTTFDE 426
Qy     425 VYTDNPKVPFHOGVYQNRTRYMVDQDFAASRDPMVYQTEPLTDLTI VGPINKFLK 484
Db     427 VYADPNSPVYSGVLETRSYMVDQDFASTRDPMVYQSDILITDITLAGVINHLV 486
Qy     485 VSTGTADYVYVYKGLIDVYPNDAAASYGKTMAGYQMMVRGEIMAGKYRNGFDKAQALTPGM 544
Db     487 VSTGTADYVYVYKGLIDVYPENTPKFNKLMAGYQNLIRAEIMRGKYRNSFSNPEAVPNK 546
Qy     545 VEKYNFEMPDVAHTFKGHRIMVQVNSWFFPLAERNPQVFLAPYTATKADFKATQRIYH 604
Db     547 ETNVTYTPDVGHTFKGHRIMI QVNSWFFPLADRNPOQFMNVYEATSKDYLKQTRQIYH 606
Qy     605 DVNNATYIEFSLK 618
Db     607 ----TSYIEIPVLK 616
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RESULT 8

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US-10-849-814-6
; Sequence 6, Application US/10849814
; Publication No. US20040219631A1
; GENERAL INFORMATION:
; APPLICANT: YOKOZEKI, KENZO
; APPLICANT: SUZUKI, SONOKO
; APPLICANT: HARA, SEIICHI
; APPLICANT: ABE, ISAO
; TITLE OF INVENTION: METHOD FOR PRODUCING TRIPEPTIDES AND/OR PEPTIDES LONGER THAN TRIP
; FILE REFERENCE: 253783US00
; CURRENT APPLICATION NUMBER: US/10/849,814
; CURRENT FILING DATE: 2004-05-21
; PRIOR APPLICATION NUMBER: PCT/JPO3/09466
; PRIOR FILING DATE: 2003-07-25
; PRIOR APPLICATION NUMBER: JP 2002-218958
; PRIOR FILING DATE: 2002-07-26
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 6
; LENGTH: 616
; TYPE: PRT
; ORGANISM: Empedobacter brevis
US-10-849-814-6
```

Query Match 66.2%; Score 2198.5; DB 5; Length 616;
Best Local Similarity 64.3%; Pred. No. 3.3e-169;
Matches 395; Conservative 85; Mismatches 129; Indels 5; Gaps 2;

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Qy     5 ISCLTLLSASQLHAQTAADAYSAYVRDHYEKEIVAI PMRDGKGLFTAIYSPDKSKYVPV 64
Db      8 VTLLTLLGSGTVGFAQDAKADAYSAYVRDNYEKEIQVIMRDKGKLFYAIYQPKDKTKQYVP 67
Qy     65 LLNRPTVTVSPYQNEKKSLGNFPQMMREGYIFVYQDVRGKWMSEGDPEFDRPTTYSKD 124
Db     68 LLNRPTVTVAPYGVNEYKSLGNFPTEMEGEFIFVYQDVRGKWMSEGEFEDVRPINPSKS 127
Qy     125 KKAIDESTDYDALEWLQNLKNYNGKAGLYGISYPGFYSTVGLVKTHPSLKAVSQAPV 184
Db     128 KKAIDESTDTFTLEWLAKNLKNYTKAGIYISYPGFYSTVGLVSHPSLKAVSQAPV 187
Qy     185 TDWYLGDDPHNGVLFLODAFTFMSTFGVPRKPTTPDQFKGIQIKKADKKNFABAGT 244
Db     188 TNWFLGDDPHNGVLFNDSPFMTFFGVKRPQPTIPDKGPRFEPYPIKONTYRFA-SGS 246
Qy     245 ARELKEKYFGDSVQFQWDLFKHPDYDDFWKSRVITNSLQEVKPAVMVVGPFDAEDAYGT 304
Db     247 VKELKDKYLQDNIKFYNDLFAHPDYDQFWDNRVLPHTNVQPAVMVVGPFDAEDVYGA 306
Qy     305 FPTYQSIEDKSKNNNSILVAGPWYHGGWVRAGNYLGDIOFEKKTSTITYQEOFPFFKY 364
Db     307 FETYKAIEKQNPKATNIMVAGFWHGGWVRSGSTFGDMQFASNTSEHYQOEIELPFNY 366
Qy     365 YLKDSGNFAPSANI FVSGSNWKHFQWPKNVETKLYFQOQKLGFDKQVOTDSWDE 424
Db     367 YLKDKGNFKPTEATFITGSNEWKQFDAMPKPNVTQKIYLOQNGKIAFNKNTTTTFDE 426
Qy     425 VYTDNPKVPFHOGVYQNRTRYMVDQDFAASRDPMVYQTEPLTDLTI VGPINKFLK 484
Db     427 VYADPNSPVYSGVLETRSYMVDQDFASTRDPMVYQSDILITDITLAGVINHLV 486
Qy     485 VSTGTADYVYVYKGLIDVYPNDAAASYGKTMAGYQMMVRGEIMAGKYRNGFDKAQALTPGM 544
Db     487 VSTGTADYVYVYKGLIDVYPENTPKFNKLMAGYQNLIRAEIMRGKYRNSFSNPEAVPNK 546
Qy     545 VEKYNFEMPDVAHTFKGHRIMVQVNSWFFPLAERNPQVFLAPYTATKADFKATQRIYH 604
Db     547 ETNVTYTPDVGHTFKGHRIMI QVNSWFFPLADRNPOQFMNVYEATSKDYLKQTRQIYH 606
Qy     605 DVNNATYIEFSLK 618
Db     607 ----TSYIEIPVLK 616
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RESULT 9

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US-10-855-533-6
; Sequence 6, Application US/10855533
; Publication No. US20050019864A1
; GENERAL INFORMATION:
; APPLICANT: HARA, SEIICHI
; APPLICANT: YOKOZEKI, KENZO
; APPLICANT: ABE, ISAO
; APPLICANT: TONOUCHI, NAOTO
; APPLICANT: JOUJIMA, YASUKO
; TITLE OF INVENTION: NOVEL PEPTIDE-FORMING ENZYME GENES
; FILE REFERENCE: 253783US00
; CURRENT APPLICATION NUMBER: US/10/855,533
; CURRENT FILING DATE: 2004-05-28
; PRIOR APPLICATION NUMBER: PCT/JPO3/09468
; PRIOR FILING DATE: 2003-07-25
; PRIOR APPLICATION NUMBER: JP 2002-218957
; PRIOR FILING DATE: 2002-07-26
; PRIOR APPLICATION NUMBER: JP 2003-16765
; PRIOR FILING DATE: 2003-01-24
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 6
; LENGTH: 616
; TYPE: PRT
; ORGANISM: Empedobacter brevis
US-10-855-533-6
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Query Match 66.2%; Score 2198.5; DB 5; Length 616;
Best Local Similarity 64.3%; Pred. No. 3.3e-169;
Matches 395; Conservative 85; Mismatches 129; Indels 5; Gaps 2;

Qy 5 ISCLTALLSASQLHAQTAADSAYVRDHYEKTEVAIPMRDGGKLPFTAIYSPKDSKKYVPV 64
Db 8 VTLTLLGSGTVGAQDAKADSAYVRDHYEKIEQVPMRDGTGKLPFTAIYQPKDKTKQYVPV 67

Qy 65 LLNRPTVTVSPYQNEYKKSIGNFPQMMREGYIFVYQDVRGKWSSEGDFDIRPTTYSKD 124
Db 68 LLNRPTVTVAPYGVNVEYKKSIGNFPTMREGFIYVYQDVRGKWSSEGFEFEDVRPINPSKS 127

Qy 125 KKAIDESTDTYDALEWLQKNLKNYNGKAGLYGISYPGFYSTVGLVKTHPSLKAVSQAPV 184
Db 128 KKAIDESTDTPTLWLAKNLKNYTKKAGIYGISYPGFYSTMSLVNSHTPLKAVSQAPV 187

Qy 195 TDWYIGDDFHNGVLFLODAFTFMSFTGVPKPKITPDQFKGIQIKBADKYNFFAEAGT 244
Db 198 TNWFLGDDFHNGVLFNDLFAHDPDYDQFWDNRNVLPHLTNPQAVMTVGGFFDAEDVYGA 246

Qy 245 ARELKEKYFGDSVQFWMNDLFKHPDYDDFWKSRVITNSLOEVKPAVMVVGFFDAEDAYGT 304
Db 247 VKELKDKYLQDNIKFYNDLFAHDPDYDQFWDNRNVLPHLTNPQAVMTVGGFFDAEDVYGA 306

Qy 305 FKTYQSIEDSKKNSILVAGPWHGHWRAEGNYLGDIOFEKKTSTITYQBFQPPFKY 364
Db 307 FETYKAIEKQNPKATNINVAGPWHGHWVRSNGSTFGDMQFASNTSEHYQOEIELPPNY 366

Qy 365 YLKBEGNFAPSEANIYVSGSNEWKHFQWPKNPKVETKLYFQPOGKLGDFDKVQRTDSWDE 424
Db 367 YLKDGNFKPTEATIFITGSENEWKQFQAWPPKPNVTQKIYLOQNGKIAFNKNTTTTFDE 426

Qy 425 YVTDPNKVPFHOGGVIQNRTRYEMVDDQRFPAASRPDMVYQTEPLTDLTIVGPIKFLK 484
Db 427 YVADPNSVPVYSGGVLETRSREYVDDQRFPASTRPDMVYQSDILTDITLAGPVINHLV 486

Qy 485 VSSGTGDADYVVKLIDVYPNDAAASYQKTMAGYQWVRGEIMAGKYRNGFKAQALTPGM 544
Db 487 VSTGTGDADYVVKLIDVYPNTPKFNKKLMAGYQNLIRAEIMRGKYRNSFSNPEAVPNK 546

Qy 545 VEKYNFEMPVVAHTFKKGRHIMVQVNSWFFPLAERNPQVFLAPYATKADPRKATORIFH 604
Db 547 ETNVTYTPMDVGHFTFKKGRHIMIYQVNSWFFPLADRNPOQFMNVYEATSKYLKQTORIYH 606

Qy 605 DVNNATYIEFSVLK 618
Db 607 ----TSYIEIPVLK 616

RESULT 10

US-10-859-405-6
; Sequence 6, Application US/10859405
; Publication No. US20050032154A1
; GENERAL INFORMATION:
; APPLICANT: YOKOZEKI, KENZO
; APPLICANT: SUZUKI, SONOKO
; APPLICANT: HARA, SEIICHI
; APPLICANT: ABE, ISAO
; TITLE OF INVENTION: METHOD FOR PRODUCING TRIPEPTIDES AND/OR PEPTIDES LONGER THAN
; FILE REFERENCE: 254070U0
; CURRENT APPLICATION NUMBER: US/10/859,405
; PRIOR FILING DATE: 2004-06-03
; PRIOR APPLICATION NUMBER: US 60/491,547
; PRIOR FILING DATE: 2003-08-01
; PRIOR APPLICATION NUMBER: JP 2002-218958
; PRIOR FILING DATE: 2002-07-26
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 6
; LENGTH: 616
; TYPE: PRT
; ORGANISM: Empedobacter brevis

US-10-859-405-6

Query Match 66.2%; Score 2198.5; DB 5; Length 616;
Best Local Similarity 64.3%; Pred. No. 3.3e-169;
Matches 395; Conservative 85; Mismatches 129; Indels 5; Gaps 2;

Qy 5 ISCLTALLSASQLHAQTAADSAYVRDHYEKTEVAIPMRDGGKLPFTAIYSPKDSKKYVPV 64
Db 8 VTLTLLGSGTVGAQDAKADSAYVRDHYEKIEQVPMRDGTGKLPFTAIYQPKDKTKQYVPV 67

Qy 65 LLNRPTVTVSPYQNEYKKSIGNFPQMMREGYIFVYQDVRGKWSSEGDFDIRPTTYSKD 124
Db 68 LLNRPTVTVAPYGVNVEYKKSIGNFPTMREGFIYVYQDVRGKWSSEGFEFEDVRPINPSKS 127

Qy 125 KKAIDESTDTYDALEWLQKNLKNYNGKAGLYGISYPGFYSTVGLVKTHPSLKAVSQAPV 184
Db 128 KKAIDESTDTPTLWLAKNLKNYTKKAGIYGISYPGFYSTMSLVNSHTPLKAVSQAPV 187

Qy 195 TDWYIGDDFHNGVLFLODAFTFMSFTGVPKPKITPDQFKGIQIKBADKYNFFAEAGT 244
Db 198 TNWFLGDDFHNGVLFNDLFAHDPDYDQFWDNRNVLPHLTNPQAVMTVGGFFDAEDVYGA 246

Qy 245 ARELKEKYFGDSVQFWMNDLFKHPDYDDFWKSRVITNSLOEVKPAVMVVGFFDAEDAYGT 304
Db 247 VKELKDKYLQDNIKFYNDLFAHDPDYDQFWDNRNVLPHLTNPQAVMTVGGFFDAEDVYGA 306

Qy 305 FKTYQSIEDSKKNSILVAGPWHGHWRAEGNYLGDIOFEKKTSTITYQBFQPPFKY 364
Db 307 FETYKAIEKQNPKATNINVAGPWHGHWVRSNGSTFGDMQFASNTSEHYQOEIELPPNY 366

Qy 365 YLKBEGNFAPSEANIYVSGSNEWKHFQWPKNPKVETKLYFQPOGKLGDFDKVQRTDSWDE 424
Db 367 YLKDGNFKPTEATIFITGSENEWKQFQAWPPKPNVTQKIYLOQNGKIAFNKNTTTTFDE 426

Qy 425 YVTDPNKVPFHOGGVIQNRTRYEMVDDQRFPAASRPDMVYQTEPLTDLTIVGPIKFLK 484
Db 427 YVADPNSVPVYSGGVLETRSREYVDDQRFPASTRPDMVYQSDILTDITLAGPVINHLV 486

Qy 485 VSSGTGDADYVVKLIDVYPNDAAASYQKTMAGYQWVRGEIMAGKYRNGFKAQALTPGM 544
Db 487 VSTGTGDADYVVKLIDVYPNTPKFNKKLMAGYQNLIRAEIMRGKYRNSFSNPEAVPNK 546

Qy 545 VEKYNFEMPVVAHTFKKGRHIMVQVNSWFFPLAERNPQVFLAPYATKADPRKATORIFH 604
Db 547 ETNVTYTPMDVGHFTFKKGRHIMIYQVNSWFFPLADRNPOQFMNVYEATSKYLKQTORIYH 606

Qy 605 DVNNATYIEFSVLK 618
Db 607 ----TSYIEIPVLK 616

RESULT 11

US-10-876-673-6
; Sequence 6, Application US/10876673
; Publication No. US20050124035A1
; GENERAL INFORMATION:
; APPLICANT: YOKOZEKI, KENZO
; APPLICANT: OHNO, AYAKO
; APPLICANT: HARA, SEIICHI
; APPLICANT: ABE, ISAO
; TITLE OF INVENTION: METHOD FOR PRODUCING ALPHA-L-ASPARTYL-L-PHENYLALANINE-BETA-ESTER
; TITLE OF INVENTION: AND METHOD FOR PRODUCING
; FILE REFERENCE: 254836USOPT
; CURRENT APPLICATION NUMBER: US/10/876,673
; CURRENT FILING DATE: 2004-06-28
; PRIOR APPLICATION NUMBER: PCT/JP2004/000620
; PRIOR FILING DATE: 2004-01-23
; PRIOR APPLICATION NUMBER: JP 2003-016764
; PRIOR FILING DATE: 2003-01-24
; PRIOR APPLICATION NUMBER: JP 2003-201819
; PRIOR FILING DATE: 2003-07-25
; PRIOR APPLICATION NUMBER: US 60/491,546

; PRIOR FILING DATE: 2003-08-01
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 6
; LENGTH: 616
; TYPE: PRT
; ORGANISM: Empedobacter brevis
US-10-876-673-6

Query Match 66.2%; Score 2198.5; DB 5; Length 616;
Best Local Similarity 64.3%; Pred. No. 3.3e-169;
Matches 395; Conservative 85; Mismatches 129; Indels 5; Gaps 2;
QY 5 ISCLTALLSASQLHAQTAADSAYVRDHYEKTEVAIPMRDGGKCLFTALYSKPKSKKTPV 64
DB 8 VTLLTLLGSGTVGAQDAKADSAYVRDNYEKIEQVPMRDGDKLFTALYQPKDKTKQYVP 67
QY 65 LLNRTPTVTPYGVNKKSLGNFPQMMREGVIFVYQDVRGKMSSEGEFDIRPTTYSKD 124
DB 68 LLNRTPTVTPYGVNKKSLGNFPTEMREGFIFVYQDVRGKMSSEGEFDIRPINSKS 127
QY 125 KKAIDESTDTYDALEWLQKLNKYNKGKAGLYGISYPGFYSTVGLVKTSPSLKAVSPQAPV 184
DB 128 KKAIDESTDTYDALEWLQKLNKYNKGKAGLYGISYPGFYSTVGLVKTSPSLKAVSPQAPV 187
QY 185 TDWYIGDDFHNGVLFQDAFTFMSFGVPRPKPTTPDQFKGIQIKKADKYNPFAEAGT 244
DB 188 TNWFLGDDFHNGVLFQDAFTFMSFGVPRPKPTTPDQFKGIQIKKADKYNPFAEAGT 246
QY 245 ARELKEKYFGSDVQVFNLDLFXHPDYDDFWKSRVITNSLQEVKPAVMVVGFFDAEDAYGT 304
DB 247 VKELKDKYLQDNIKFYNDLFAHPDYDQFQDRNVLPHLTNVQPAVMVVGFFDAEDVYGA 306
QY 305 FKTYQSIEDSKKNSILVAGFWYHGGWVRAEGNVLGDIQFEKTSITYQSEFQEPFFKY 364
DB 307 FETKALIEKQPKATNIWAGFWHGGWVRSNGSTFGDMQFASNTSEHYQOEIELPFFNY 366
QY 365 YLKDEGNFAPSEANI FVSGSNKWEKHFQWPKVETKCLYFQPOGKLGFDKVRTDSWDE 424
DB 425 YVTDNPKVPVHQGGVIQNRTRYVDDQRFASRPDMVYQTEPLETDLITVGPKNFLK 484
DB 427 YVADNPSVPVSGGVLETRSRREYVDDQRFASRPDMVYQSDILITDLITLAGPVINHLV 486
QY 485 VSSGTGDADYVVKLIDVTPNDAAASYQKTMAGYQMMVRGEIMAGKYNRNGFDKQAALTQGM 544
DB 487 VSTGTGDADYVVKLIDVTPENTPKFNKLMAGYQNLIRAEIMRGKYNRSFNSPNAWPNK 546
QY 545 VEKVNFPMPDVAHTFKKGRIMVQVNSWFFPLAERNPQVFLAPYTATKADFRKATQRIHF 604
DB 547 ETNVTYTPDVGHTFKKGRIMI QVNSWFFPLADENPQFMVNVYATSKDYLKQTORIYH 606
QY 605 DVNNATYIEFSLK 618
DB 607 ----TSYIEIPVLK 616

RESULT 12
US-11-050-829-14
; Sequence 14, Application US/11050829
; Publication No. US20050176150A1
; GENERAL INFORMATION:
; APPLICANT: KIRA, IKUO
; APPLICANT: YOKOZAKI, KENZO
; APPLICANT: SUZUKI, SONOKO
; APPLICANT: MIHARA, YASUHIRO
; APPLICANT: HIRAO, YOSHINOBU
; TITLE OF INVENTION: MUTANT MICROORGANISM AND METHOD FOR PRODUCING PEPTIDE USING THE
; FILE REFERENCE: 265063050
; CURRENT APPLICATION NUMBER: US/11/050,829
; CURRENT FILING DATE: 2005-02-07

; PRIOR APPLICATION NUMBER: US 60/617,060
; PRIOR FILING DATE: 2004-10-12
; PRIOR APPLICATION NUMBER: JP 2004-029844
; PRIOR FILING DATE: 2004-02-05
; NUMBER OF SEQ ID NOS: 22
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 14
; LENGTH: 616
; TYPE: PRT
; ORGANISM: Empedobacter brevis
US-11-050-829-14

Query Match 66.2%; Score 2198.5; DB 6; Length 616;
Best Local Similarity 64.3%; Pred. No. 3.3e-169;
Matches 395; Conservative 85; Mismatches 129; Indels 5; Gaps 2;
QY 5 ISCLTALLSASQLHAQTAADSAYVRDHYEKTEVAIPMRDGGKCLFTALYSKPKSKKTPV 64
DB 8 VTLLTLLGSGTVGAQDAKADSAYVRDNYEKIEQVPMRDGDKLFTALYQPKDKTKQYVP 67
QY 65 LLNRTPTVTPYGVNKKSLGNFPQMMREGVIFVYQDVRGKMSSEGEFDIRPTTYSKD 124
DB 68 LLNRTPTVTPYGVNKKSLGNFPTEMREGFIFVYQDVRGKMSSEGEFDIRPINSKS 127
QY 125 KKAIDESTDTYDALEWLQKLNKYNKGKAGLYGISYPGFYSTVGLVKTSPSLKAVSPQAPV 184
DB 128 KKAIDESTDTYDALEWLQKLNKYNKGKAGLYGISYPGFYSTVGLVKTSPSLKAVSPQAPV 187
QY 185 TDWYIGDDFHNGVLFQDAFTFMSFGVPRPKPTTPDQFKGIQIKKADKYNPFAEAGT 244
DB 188 TNWFLGDDFHNGVLFQDAFTFMSFGVPRPKPTTPDQFKGIQIKKADKYNPFAEAGT 246
QY 245 ARELKEKYFGSDVQVFNLDLFXHPDYDDFWKSRVITNSLQEVKPAVMVVGFFDAEDAYGT 304
DB 247 VKELKDKYLQDNIKFYNDLFAHPDYDQFQDRNVLPHLTNVQPAVMVVGFFDAEDVYGA 306
QY 305 FKTYQSIEDSKKNSILVAGFWYHGGWVRAEGNVLGDIQFEKTSITYQSEFQEPFFKY 364
DB 307 FETKALIEKQPKATNIWAGFWHGGWVRSNGSTFGDMQFASNTSEHYQOEIELPFFNY 366
QY 365 YLKDEGNFAPSEANI FVSGSNKWEKHFQWPKVETKCLYFQPOGKLGFDKVRTDSWDE 424
DB 425 YVTDNPKVPVHQGGVIQNRTRYVDDQRFASRPDMVYQTEPLETDLITVGPKNFLK 484
DB 427 YVADNPSVPVSGGVLETRSRREYVDDQRFASRPDMVYQSDILITDLITLAGPVINHLV 486
QY 485 VSSGTGDADYVVKLIDVTPNDAAASYQKTMAGYQMMVRGEIMAGKYNRNGFDKQAALTQGM 544
DB 487 VSTGTGDADYVVKLIDVTPENTPKFNKLMAGYQNLIRAEIMRGKYNRSFNSPNAWPNK 546
QY 545 VEKVNFPMPDVAHTFKKGRIMVQVNSWFFPLAERNPQVFLAPYTATKADFRKATQRIHF 604
DB 547 ETNVTYTPDVGHTFKKGRIMI QVNSWFFPLADENPQFMVNVYATSKDYLKQTORIYH 606
QY 605 DVNNATYIEFSLK 618
DB 607 ----TSYIEIPVLK 616

RESULT 13
US-11-085-576-12
; Sequence 12, Application US/11085576
; Publication No. US20050227325A1
; GENERAL INFORMATION:
; APPLICANT: MIHARA, YASUHIRO
; APPLICANT: HIRAO, YOSHINOBU
; TITLE OF INVENTION: RECOMBINANT POLYNUCLEOTIDE
; FILE REFERENCE: 26825850
; CURRENT APPLICATION NUMBER: US/11/085,576
; CURRENT FILING DATE: 2005-03-22
; PRIOR APPLICATION NUMBER: JP 2004-083481

; PRIOR FILING DATE: 2004-03-22
; NUMBER OF SEQ ID NOS: 28
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 12
; LENGTH: 616
; TYPE: PRT
; ORGANISM: Empedobacter brevis
US-11-085-576-12

Query Match 66.2%; Score 2198.5; DB 6; Length 616;
Best Local Similarity 64.3%; Pred. No. 3.3e-169;
Matches 395; Conservative 85; Mismatches 129; Indels 5; Gaps 2;
Qy 5 ISCLTLLSASQLHAQTAADSAVYRDHYEKTEVAIPMRDGGKLFALYSPKDSKKYVP 64
Db 8 VILITLLGSGTVGFAQDAKADSAVYRDNYEKIEQVPMRDGKLFALYSPKDKTKQYVP 67
Qy 65 LLNRTPTVSPYQNGEYKKSGLNFPQMREGYIFVYQDVRGKMSSEGFEDIRPTTYSKD 124
Db 68 LLNRTPTVSPYQNGEYKKSGLNFPQMREGYIFVYQDVRGKMSSEGFEDIRPTTYSKS 127
Qy 125 KKAIDESTDITDALEWLNKYNKAGLYGISYPGFYSTVGLVTHPSLKAVSPQAPV 184
Db 128 KKAIDESTDITDALEWLNKYNKAGLYGISYPGFYSTVGLVTHPSLKAVSPQAPV 187
Qy 185 TDWYIGDDFHNGVLFQDAFTFSTFGVPRPKPTTDPQFKGIQIKADKYNFFAAGT 244
Db 188 TNWFLGDDFHNGVLFQDAFTFSTFGVPRPKPTTDPQFKGIQIKADKYNFFAAGT 246
Qy 245 ARELKEKYFGDSVQFVNDLFXHPDYDDDFWKSRSVITNSLQEVKPAVMVVGFFDAEDAYGT 304
Db 247 VKELKDKYLQDNIRKYNDFLFAHPDYDQFWQDRNVLPHLTNNQPAVMVVGFFDAEDYGA 306
Qy 305 PXTYQSTEDSKKNSILVAGFWTHGHWRAEAGNYLGDIOPEKKTSTIYQSQFPQPFKY 364
Db 307 PETYKATEKQPKATNIMVAGFWTHGHWRAEAGNYLGDIOPEKKTSTIYQSQFIELPFFNY 366
Qy 365 YLKDQGNFAPSEANIFVSGSNWEHFEQWPKNVETKLYEQPOGKLGFDKQVQTSWDE 424
Db 367 YLKDQGNFAPSEANIFVSGSNWEHFEQWPKNVETKLYEQPOGKLGFDKQVQTSWDE 426
Qy 425 YVTDPNKFPVHQGGVQNRTRYVDDQFPAASRPDMVYQTEPLTDITVGPKNFLK 484
Db 427 YVADPNSEVPVSGGVLETRSEYVDDQFPAASRPDMVYQTEPLTDITVGPKNFLK 486
Qy 485 VSSTGTDADYVVKLIDVYVNDAAASYQGTMAQYQMMVRGEIMAGKYNRNGFDKQAALTFGM 544
Db 487 VSTGTDADYVVKLIDVYVNDAAASYQGTMAQYQMMVRGEIMAGKYNRNGFDKQAALTFGM 546
Qy 545 VEKYNFEMPVDAHTFKGHRIMVQVNSWFFPLAERNQVFLAPYTATKADPRKATORIFH 604
Db 547 ETNVTYMPDVGHFTFKGHRIMI VQVNSWFFPLAERNQVFLAPYTATKADPRKATORIYH 606
Qy 605 DVNNATYIEFVLK 618
Db 607 ----TSYIEIPVLK 616

RESULT 14
US-11-085-576-3
; Sequence 3, Application US/11085576
; Publication No. US20050227325A1
; GENERAL INFORMATION:
; APPLICANT: MIHARA, YASUHIRO
; APPLICANT: HIRAO, YOSHINOBI
; TITLE OF INVENTION: RECOMBINANT POLYNUCLEOTIDE
; FILE REFERENCE: 268258US0
; CURRENT APPLICATION NUMBER: US/11/085,576
; CURRENT FILING DATE: 2005-03-22
; PRIOR APPLICATION NUMBER: JP 2004-083481
; PRIOR FILING DATE: 2004-03-22
; NUMBER OF SEQ ID NOS: 28
; SOFTWARE: PatentIn version 3.3

; SEQ ID NO 3
; LENGTH: 594
; TYPE: PRT
; ORGANISM: Empedobacter brevis
US-11-085-576-3

Query Match 65.9%; Score 2187.5; DB 6; Length 594;
Best Local Similarity 65.5%; Pred. No. 2.4e-168;
Matches 390; Conservative 83; Mismatches 117; Indels 5; Gaps 2;
Qy 24 ADSAYVRDHYEKTEVAIPMRDGGKLFALYSPKDSKKYVLLNRTPTVSPYQNGEYK 83
Db 5 ADSAYVRDHYEKTEVAIPMRDGGKLFALYSPKDSKKYVLLNRTPTVSPYQNGEYK 64
Qy 84 SLGNFPQMRREGYIFVYQDVRGKMSSEGFEDIRPTTYSKDKKAIIDSTDTYDALEWLNQ 143
Db 65 SLGNFPQMRREGYIFVYQDVRGKMSSEGFEDIRPTTYSKDKKAIIDSTDTYDALEWLNQ 124
Qy 144 NLKYNKAGLYGISYPGFYSTVGLVTHPSLKAVSPQAPVTDWYIGDDFHNGVLFQD 203
Db 125 NLKYNKAGLYGISYPGFYSTVGLVTHPSLKAVSPQAPVTDWYIGDDFHNGVLFQD 184
Qy 204 APTFMSTFGVPRPKPTTDPQFKGIQIKADKYNFFAAGTARELKEKYFGDSVQFVNDL 263
Db 185 SPSFMTFFGVKRPQPIITDPKGRFEPYPIKDNRYFYA-SGSVKELKDKYLQDNKIFYNDL 243
Qy 264 FXHPDYDDFWKSRSVITNSLQEVKPAVMVVGFFDAEDAYGTFTKYQSTEDSKKNSILV 323
Db 244 FAHPDYDQFWQDRNVLPHLTNNQPAVMVVGFFDAEDAYGTFTKYQSTEDSKKNSILV 303
Qy 324 AGPMYHGWRAEAGNYLGDIOPEKKTSTIYQSQFPEQPFKYLKDEGNFAPSEANIFVSG 383
Db 304 AGPMYHGWRAEAGNYLGDIOPEKKTSTIYQSQFPEQPFKYLKDEGNFAPSEANIFVSG 363
Qy 384 SNEWKHFEQWPKNVETKLYEQPOGKLGFDKQVQTSWDEYVDDPNKVPVPHQGGVQNR 443
Db 364 SNEWKHFEQWPKNVETKLYEQPOGKLGFDKQVQTSWDEYVDDPNKVPVPHQGGVQNR 423
Qy 444 TREYVDDQFPAASRPDMVYQTEPLTDITVGPKNFLKVSSTGTDADYVVKLIDVYP 503
Db 424 SREYVDDQFPAASRPDMVYQTEPLTDITVGPKNFLKVSSTGTDADYVVKLIDVYP 483
Qy 504 NDAASYQGTMAQYQMMVRGEIMAGKYNRNGFDKQAALTFGMVEKYNFEMPVDAHTFKK 563
Db 484 ENTYPKNNKLMAGYQNLIRAEIMRGKYNRNGFDKQAALTFGMVEKYNFEMPVDAHTFKK 543
Qy 564 RIMVQVNSWFFPLAERNQVFLAPYTATKADPRKATORIFHDVNNATYIEFVLK 618
Db 544 RIMVQVNSWFFPLAERNQVFLAPYTATKADPRKATORIFHDVNNATYIEFVLK 594

RESULT 15
US-10-763-179-18
; Sequence 18, Application US/10763179
; Publication No. US20040204577A1
; GENERAL INFORMATION:
; APPLICANT: HARA, SEIICHI
; APPLICANT: YOKOZEKI, KENZO
; APPLICANT: ABE, ISAO
; APPLICANT: TONOUCHI, NAOTO
; APPLICANT: JOJIMA, YASUKO
; TITLE OF INVENTION: NOVEL PEPTIDE-FORMING ENZYME GENES
; FILE REFERENCE: 247848US0
; CURRENT APPLICATION NUMBER: US/10/763,179
; CURRENT FILING DATE: 2004-01-26
; PRIOR APPLICATION NUMBER: JP 2003-16765
; PRIOR FILING DATE: 2003-01-24
; PRIOR APPLICATION NUMBER: US 60/491,612
; PRIOR FILING DATE: 2003-08-01
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 18
; LENGTH: 625


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; TYPE: PRT
; ORGANISM: Pedobacter heparinus
US-10-763-179-18

Query Match          62.7%; Score 2081; DB 4; Length 625;
Best Local Similarity 61.8%; Pred. No. 1.le-159;
Matches 383; Conservative 81; Mismatches 150; Indels 6; Gaps 3;

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Db : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 6 SPSPFLFIFTSLSAQ-QSDSAVIRQNYTKIERLIPMRDGKLLFTAIYIPDKSKKYP 64
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 64 VLLNETPTVSPYGVNEYSKSLGNFQPMWREGYIVYQDVGRKWNSEGDFFEDIRTTYSK 123
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 65 FMLNETPTVSPYGENNYKTSLSGSPFLFIKEGFIYVYQDVGRKWNSEGFEDVRPQIASK 124
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 124 DKKA-IDESTDTYDALEWLQKLNKNYNGKAGLYGYSYPCFYSTVGLVKTHPSLKAVSQA 182
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 125 KRKTDIDESSUTYDIDMLIRNIPGNRKTGYIGSYGFPYATAALPDHPSLKAVSQA 184
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 183 PVTDWYIGDDFHNGVLFLODAFTFMSTFGVPRPKPITPDQPKGIQIKEADKYNFFABA 242
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 185 PVTDWFIQDDFHNGVTLFLADIFSPVYTFGVPRPQIPITPKRPKPPDFPVKDYRFFLEL 244
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 243 GTARELKEKYPGDSVQFNDLFPKHPDYDDFWKSRVITNSLQEVKPAVMVVGFFDAEDAY 302
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 245 GPLKNITKKYXGDTIRFWNDINAHNTYDAFWKARNITPHLIGVKPAVLVVGFFDAEDLY 304
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 303 GTFKTYQSIEDSKKNSILVAGPMYHGWVRAEGNYLGDIOFEKKTSTITYQEQEQPFF 362
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 305 GLTKTYQAIKQNSKKNLVNPGWYHGWKARSTGSGFDINFGQPTSTSYQONVEFFPF 364
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 363 KYLLKDEGNFAPSEANI FVSGSNWKHFQWPPKXVETKCLYFQPGKLGFDKQVQRTDSW 422
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 365 MQLKEAPDAKIAEATIFITGSNEWKFSWPPQDTEERTLYLQPNGKLSFEKQVQRTDSW 424
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 423 DEYVTDPKVPVPHQGGVIONRTREYVWDDQRPASRPDMVYQTEPLTEDLTI VGPINKF 482
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 425 DEYVSDPNSPVPYQDGIQTSRTREYMIIDQRFASRRPDRVVFQTEPLSSDLTLTGPIVLAK 484
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 483 LKVSSTGTDADYVVKLIDVYND---AASYGKTMAGYQMMVRGEINAGKYRNGFDKAO 538
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 485 LVVSTGTDADYVVKLIDVYEDTNPVNPKNLIMGYQMLVRGEINMRGKIRNSFEKPE 544
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 539 ALTPGMVEKVFEMPDAHTFKGHRIMVQVQNSWFFPLAERNPQVFLAPYTATKADFRKA 598
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 545 PPVPGTITKVNYALPDVAHTPKGHRIMI QVNSWFFPLADRNPPQFMDIYQAEPCDFFKA 604
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 599 TORIFHDVNNATYIEFSVLK 618
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 605 THRIFHDVHNASAITVNLK 624
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
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GenCore version 5.1.7
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OM nucleic - nucleic search, using sw model

Run on: January 21, 2006, 15:45:47 ; Search time 1582.12 Seconds
(without alignments)
10113.830 Million cell updates/sec

Title: US-10-849-814-11
Perfect score: 1935
Sequence: 1 gaaaccagtgtaaaattat.....attagcaggtaaatcgaaa 1935

Scoring table: IDENTITY_NUC

Gapop 10.0 , Gapext 1.0

Searched: 9793542 seqs, 4134689005 residues

Total number of hits satisfying chosen parameters: 19587084

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published Applications NA Main:

- 1: /cgn2_6/prodata/1/pubpna/US07_PUBCOMB.seq*
- 2: /cgn2_6/prodata/1/pubpna/US08_PUBCOMB.seq*
- 3: /cgn2_6/prodata/1/pubpna/US09A_PUBCOMB.seq*
- 4: /cgn2_6/prodata/1/pubpna/US09B_PUBCOMB.seq*
- 5: /cgn2_6/prodata/1/pubpna/US10A_PUBCOMB.seq*
- 6: /cgn2_6/prodata/1/pubpna/US10B_PUBCOMB.seq*
- 7: /cgn2_6/prodata/1/pubpna/US10C_PUBCOMB.seq*
- 8: /cgn2_6/prodata/1/pubpna/US10D_PUBCOMB.seq*
- 9: /cgn2_6/prodata/1/pubpna/US10E_PUBCOMB.seq*
- 10: /cgn2_6/prodata/1/pubpna/US11_PUBCOMB.seq*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Score | Query Match | Length | ID | Description |
|------------|-------|-------------|--------|----|------------------------------------|
| 1 | 1935 | 100.0 | 1935 | 8 | US-10-763-179-11 Sequence 11, Appl |
| 2 | 1935 | 100.0 | 1935 | 8 | US-10-849-814-11 Sequence 11, Appl |
| 3 | 1935 | 100.0 | 1935 | 8 | US-10-855-533-11 Sequence 11, Appl |
| 4 | 1935 | 100.0 | 1935 | 8 | US-10-859-405-11 Sequence 11, Appl |
| 5 | 1935 | 100.0 | 1935 | 9 | US-10-876-673-11 Sequence 11, Appl |
| 6 | 1935 | 100.0 | 1935 | 10 | US-11-050-829-19 Sequence 19, Appl |
| 7 | 771 | 39.8 | 2024 | 8 | US-10-763-179-5 Sequence 5, Appl |
| 8 | 771 | 39.8 | 2024 | 8 | US-10-849-814-5 Sequence 5, Appl |
| 9 | 771 | 39.8 | 2024 | 8 | US-10-855-533-5 Sequence 5, Appl |
| 10 | 771 | 39.8 | 2024 | 8 | US-10-859-405-5 Sequence 5, Appl |
| 11 | 771 | 39.8 | 2024 | 9 | US-10-876-673-5 Sequence 5, Appl |
| 12 | 771 | 39.8 | 2024 | 10 | US-11-050-829-13 Sequence 13, Appl |
| 13 | 771 | 39.8 | 2024 | 10 | US-11-085-576-11 Sequence 11, Appl |
| 14 | 694.6 | 35.9 | 1974 | 8 | US-10-763-179-17 Sequence 17, Appl |
| 15 | 694.6 | 35.9 | 1974 | 8 | US-10-855-533-17 Sequence 17, Appl |
| 16 | 694.6 | 35.9 | 1974 | 9 | US-10-876-673-17 Sequence 17, Appl |
| 17 | 368.4 | 19.0 | 2018 | 8 | US-10-763-179-22 Sequence 22, Appl |
| 18 | 368.4 | 19.0 | 2018 | 8 | US-10-855-533-22 Sequence 22, Appl |
| 19 | 368.4 | 19.0 | 2018 | 9 | US-10-876-673-22 Sequence 22, Appl |
| 20 | 332 | 17.2 | 1931 | 8 | US-10-763-179-24 Sequence 24, Appl |
| 21 | 332 | 17.2 | 1931 | 8 | US-10-855-533-24 Sequence 24, Appl |
| 22 | 332 | 17.2 | 1931 | 9 | US-10-876-673-24 Sequence 24, Appl |
| 23 | 277 | 14.3 | 2036 | 8 | US-10-763-179-26 Sequence 26, Appl |

| | | | | | | |
|------|-------|------|---------|---|---------------------|-------------------|
| 24 | 277 | 14.3 | 2036 | 8 | US-10-855-533-26 | Sequence 26, Appl |
| 25 | 277 | 14.3 | 2036 | 9 | US-10-876-673-26 | Sequence 26, Appl |
| c 26 | 119.8 | 6.2 | 2731748 | 7 | US-10-297-465A-1 | Sequence 1, Appl |
| 27 | 55.8 | 2.9 | 684707 | 7 | US-10-398-221-9 | Sequence 9, Appl |
| c 28 | 55.8 | 2.9 | 3011208 | 7 | US-10-398-221-2058 | Sequence 2058, Ap |
| 29 | 50.4 | 2.6 | 2252 | 7 | US-10-398-221-1912 | Sequence 1912, Ap |
| 30 | 50.4 | 2.6 | 2288 | 7 | US-10-398-221-3677 | Sequence 3677, Ap |
| c 31 | 44.4 | 2.3 | 632 | 8 | US-10-357-930-55211 | Sequence 55211, A |
| c 32 | 43.4 | 2.2 | 426 | 6 | US-10-349-680-135 | Sequence 135, App |
| 33 | 41.8 | 2.2 | 6498 | 9 | US-10-499-353A-45 | Sequence 45, Appl |
| 34 | 41.8 | 2.2 | 7268 | 9 | US-10-499-353A-43 | Sequence 43, Appl |
| 35 | 41.8 | 2.2 | 7951 | 9 | US-10-499-353A-27 | Sequence 27, Appl |
| 36 | 41.8 | 2.2 | 9480 | 9 | US-10-499-353A-23 | Sequence 23, Appl |
| 37 | 41.8 | 2.2 | 9954 | 9 | US-10-499-353A-24 | Sequence 24, Appl |
| 38 | 41.8 | 2.2 | 15613 | 9 | US-10-499-353A-25 | Sequence 25, Appl |
| 39 | 41.8 | 2.2 | 16309 | 9 | US-10-499-353A-22 | Sequence 22, Appl |
| 40 | 41.8 | 2.2 | 16387 | 9 | US-10-499-353A-16 | Sequence 16, Appl |
| 41 | 41.8 | 2.2 | 16854 | 9 | US-10-499-353A-21 | Sequence 21, Appl |
| 42 | 41.8 | 2.2 | 18795 | 9 | US-10-499-353A-20 | Sequence 20, Appl |
| 43 | 41.8 | 2.2 | 19027 | 9 | US-10-499-353A-21 | Sequence 21, Appl |
| 44 | 41.8 | 2.2 | 19181 | 9 | US-10-499-353A-21 | Sequence 21, Appl |
| 45 | 41.8 | 2.2 | 19242 | 9 | US-10-499-353A-20 | Sequence 20, Appl |

ALIGNMENTS

RESULT 1
US-10-763-179-11
; Sequence 11, Application US/10763179
; Publication No. US20040204577A1
; GENERAL INFORMATION:
; APPLICANT: HARA, SEIICHI
; APPLICANT: YOKOZAKI, KENZO
; APPLICANT: ABE, ISAO
; APPLICANT: TONOUCHI, NAOTO
; APPLICANT: JOJIMA, YASUKO
; TITLE OF INVENTION: NOVEL PEPTIDE-FORMING ENZYME GENES
; FILE REFERENCE: 247848USO
; CURRENT APPLICATION NUMBER: US/10/763,179
; CURRENT FILING DATE: 2004-01-26
; PRIOR APPLICATION NUMBER: JP 2003-16765
; PRIOR FILING DATE: 2003-01-24
; PRIOR APPLICATION NUMBER: US 60/491,612
; PRIOR FILING DATE: 2003-08-01
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 11
; LENGTH: 1935
; TYPE: DNA
; ORGANISM: Sphingobacterium sp.
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (61)..(1917)
; OTHER INFORMATION:
US-10-763-179-11

| | | | | | |
|-----------------------|-----|---|---------------|-----------|--------------|
| Query Match | | 100.0%; | Score 1935; | DB 8; | Length 1935; |
| Best Local Similarity | | 100.0%; | Pred. No. 0; | | |
| Matches 1935; | | Conservative 0; | Mismatches 0; | Indels 0; | Gaps 0; |
| QY | 1 | GAACCAAGTGTAATAATTATAATTTACACCAAGAATGTACTGAAACAAATAATATCTGA | 60 | | |
| Db | 1 | GAACCAAGTGTAATAATTATAATTTACACCAAGAATGTACTGAAACAAATAATATCTGA | 60 | | |
| QY | 61 | ATGAAAAATACAAATTCGTGCGCTTAATTTAGCGCTTTTAAAGCGCAAGCCAGTACATGCT | 120 | | |
| Db | 61 | ATGAAAAATACAAATTCGTGCGCTTAATTTAGCGCTTTTAAAGCGCAAGCCAGTACATGCT | 120 | | |
| QY | 121 | CAACAGCTGCCGACTCCGCTTATGTAGAGATCATTATGAAAGACCGAAGTAGCAATT | 180 | | |
| Db | 121 | CAACAGCTGCCGACTCCGCTTATGTAGAGATCATTATGAAAGACCGAAGTAGCAATT | 180 | | |

QY 181 CCCATGCGAGATGGGAAATAATTTACTGCGATCTACAGTCCAAAAGACAAATCCAAAG 240
Db 181 CCCATGCGAGATGGGAAATAATTTACTGCGATCTACAGTCCAAAAGACAAATCCAAAG 240
QY 241 AAATATCCAGTTTTCCTCAATAGAACGCCCTACACGGTTTCACTTATGGGCGAGAACGAA 300
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Db 301 TATAAAAAAGCTTCGGGAACTTTCCCAAATGATGCGTGAAGGCTATATATTTTCGTTTAC 360
QY 361 CAGGATGTCGCGGCAAGTGGATGAGCGAAGGTGATTTTGAAGATATACGTCGCAACACG 420
Db 361 CAGGATGTCGCGGCAAGTGGATGAGCGAAGGTGATTTTGAAGATATACGTCGCAACACG 420
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Db 421 TACAGCAAGATATAAAAAAGCAATCGATGAAGTACGGAATACCTATGATGCGCTTGAATGG 480
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Db 541 GCGTTCTATTTACCGTCGGATTGTCATAAACAACACACCGGAGCTTCAAGGCGAGTCTCCCCA 600
QY 601 CAGGTCGCGTAACAGATGCTGATATATCGCGGACGACCTTCCACCAATATGGCGTATGTTT 660
Db 601 CAGGTCGCGTAACAGATGCTGATATATCGCGGACGACCTTCCACCAATATGGCGTATGTTT 660
QY 661 CTTACAGGATGCATTTACATTCATGTCACCTTTGCTGTCCTCGTCCCAAAACCAATTACA 720
Db 661 CTTACAGGATGCATTTACATTCATGTCACCTTTGCTGTCCTCGTCCCAAAACCAATTACA 720
QY 721 CCGGATCAATTTAAGGCGAAATTCAGATCAAAAGACCGATATAATATAAATTTTTCGA 780
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QY 781 GAAGCAGGAACAGCGCGGAACTCAAGAAAGTATTTTGTGATCCTCGTACAAATTTTGG 840
Db 781 GAAGCAGGAACAGCGCGGAACTCAAGAAAGTATTTTGTGATCCTCGTACAAATTTTGG 840
QY 841 AATGACCTGTTTAAGCATCCGACATCATGATGATTTTTCGGAATCCGCTGATCACGAAT 900
Db 841 AATGACCTGTTTAAGCATCCGACATCATGATGATTTTTCGGAATCCGCTGATCACGAAT 900
QY 901 TCTTTACAGGAGTAAAAACCGACTGATGTTGTTGTTGTTTCTTTGACGCGGAAGAT 960
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QY 961 GCTTATGAACATTTAAGACCTTACCAATCGATGAGGATAAAGCAAAAAAACAACCTCG 1020
Db 961 GCTTATGAACATTTAAGACCTTACCAATCGATGAGGATAAAGCAAAAAAACAACCTCG 1020
QY 1021 ATTTTAGTCGCGGACCTTGTATCATGCGCGTTGGTTTCTGTCGAGAAGGAACTATTTA 1080
Db 1021 ATTTTAGTCGCGGACCTTGTATCATGCGCGTTGGTTTCTGTCGAGAAGGAACTATTTA 1080
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Db 1081 GGTGATATCCAAATTTGAGAAAAAACCACTATCTATCAGGAACAATTTGAACAACA 1140
QY 1141 TTTTTCAAATATFACCTAAAGATGAAGGAACTTCGCGCCCTTCGGAAGCTAACATTTT 1200
Db 1141 TTTTTCAAATATFACCTAAAGATGAAGGAACTTCGCGCCCTTCGGAAGCTAACATTTT 1200
QY 1201 GTTTCAGGCAAGCAATGGAACAATTTTCGAACAGTGGCCCAACCAAAAATGTAGAGACA 1260
Db 1201 GTTTCAGGCAAGCAATGGAACAATTTTCGAACAGTGGCCCAACCAAAAATGTAGAGACA 1260
QY 1261 AAAAAACTATCTTCCAACTCAGGGGAACTTGGATTTTGACAAAGTTCAAGCTACAGAT 1320

Db 1261 AAAAAACTATCTTCCAACTCAGGGGAACTTGGATTTTGACAAAGTTCAAGCTACAGAT 1320
QY 1321 TCCTGGGATGAATATGTAACAGACCCATAATAAACCCTGTTCCGCAATCAAGGTGGGGTAATT 1380
Db 1321 TCCTGGGATGAATATGTAACAGACCCATAATAAACCCTGTTCCGCAATCAAGGTGGGGTAATT 1380
QY 1381 CAAAAACCGAACACACGGGAGTATATGTTAGATGATCAACGTTTTCGGGGCTAGTTCGCCCTGAT 1440
Db 1381 CAAAAACCGAACACACGGGAGTATATGTTAGATGATCAACGTTTTCGGGGCTAGTTCGCCCTGAT 1440
QY 1441 GTCATGTTTATCAAAACGGAACCGTTGACGAGGACCTTGACGATAGTAGAGGCCCAATCAAA 1500
Db 1441 GTCATGTTTATCAAAACGGAACCGTTGACGAGGACCTTGACGATAGTAGAGGCCCAATCAAA 1500
QY 1501 AACTTTCTCAAGTTCCTTCAACAGGAACACACGGGACCTATGTTTCAAACTGATTGAC 1560
Db 1501 AACTTTCTCAAGTTCCTTCAACAGGAACACACGGGACCTATGTTTCAAACTGATTGAC 1560
QY 1561 GTTTATCCGAATGATGACGAAAGTTTATCAAGCAAAAAACAATGGCTGGATATCAAAATGATG 1620
Db 1561 GTTTATCCGAATGATGACGAAAGTTTATCAAGCAAAAAACAATGGCTGGATATCAAAATGATG 1620
QY 1621 GTACGTCGTGAGATCATGGCGGGGAAATPACCGAAATGTTTCGATAAAGCCGACGCCCTTG 1680
Db 1621 GTACGTCGTGAGATCATGGCGGGGAAATPACCGAAATGTTTCGATAAAGCCGACGCCCTTG 1680
QY 1681 ACTCAGGATATGTCGAAAAAGGTGAATTTTGAATGCCAGACCTTCCGCAATCCTTCAAA 1740
Db 1681 ACTCAGGATATGTCGAAAAAGGTGAATTTTGAATGCCAGACCTTCCGCAATCCTTCAAA 1740
QY 1741 AAAGGACATCCGATTTATGTTTCAGTACAAACCTCATGTTTTCGCTCGCAGAACGAAAT 1800
Db 1741 AAAGGACATCCGATTTATGTTTCAGTACAAACCTCATGTTTTCGCTCGCAGAACGAAAT 1800
QY 1801 CCACAGGTGTTTTTAGCACCTTTATACAGTACCAAGCTGATTTTCGCAAAAGCTACCCAA 1860
Db 1801 CCACAGGTGTTTTTAGCACCTTTATACAGTACCAAGCTGATTTTCGCAAAAGCTACCCAA 1860
QY 1861 CGTATTTTCAGATGGAACAATGCCACATACATCGAATTTTCTGTCTCTCAAGATTAG 1920
Db 1861 CGTATTTTCAGATGGAACAATGCCACATACATCGAATTTTCTGTCTCTCAAGATTAG 1920
QY 1921 CAGGTAAATTCGAAA 1935
Db 1921 CAGGTAAATTCGAAA 1935

RESULT 2

US-10-849-814-11

; Sequence 11, Application US/10849814

; Publication No. US20040219631A1

; GENERAL INFORMATION:

; APPLICANT: YOKOZEKI, KENZO

; APPLICANT: SUZUKI, SONOKO

; APPLICANT: HARA, SEIICHI

; APPLICANT: ABE, ISAO

; TITLE OF INVENTION: METHOD FOR PRODUCING TRIPEPTIDES AND/OR PEPTIDES LONGER THAN TRIPE

; FILE REFERENCE: 252308USOCONT

; CURRENT APPLICATION NUMBER: US/10/849,814

; PRIOR FILING DATE: 2004-05-21

; PRIOR APPLICATION NUMBER: PCT/JP03/09466

; PRIOR FILING DATE: 2003-07-25

; PRIOR FILING DATE: 2002-07-26

; NUMBER OF SEQ ID NOS: 14

; SOFTWARE: PatentIn version 3.1

; SEQ ID NO 11

; LENGTH: 1935

; TYPE: DNA

; ORGANISM: Sphingobacterium sp.

; FEATURE:

; NAME/KEY: CDS

; LOCATION: (61)..(1917)
 ; OTHER INFORMATION:
 US-10-849-814-11

| Query Match | 100.0%; | Score 1935; | DB 8; | Length 1935; |
|-----------------------|--------------|--|---------------|-------------------|
| Best Local Similarity | 100.0%; | Prod. No. 0; | | |
| Matches 1935; | Conservative | 0; | Mismatches 0; | Indels 0; Gaps 0; |
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| DB | 1 | GAACACCAAGTGTAAATTTATATTTACACCAAGAAATGTACTGTGAACAAATATATATCTGA | 60 | |
| QY | 61 | ATGAAAAATACAAATTTGGTCTTAATTTAGCGCTTTTAAAGCGCAAGCCAGTTACATGCT | 120 | |
| DB | 61 | ATGAAAAATACAAATTTGGTCTTAATTTAGCGCTTTTAAAGCGCAAGCCAGTTACATGCT | 120 | |
| QY | 121 | CAAAACGCTCGCGACTCGGCTTATGTGTAGAGATCAATATGAAGAAAGACCGGAAGTACGAAT | 180 | |
| DB | 121 | CAAAACGCTCGCGACTCGGCTTATGTGTAGAGATCAATATGAAGAAAGACCGGAAGTACGAAT | 180 | |
| QY | 181 | CCCATGCGAGATGGGAAAAATTTATTTACTCGGATCTACAGTCCAAAGACAAATCCCAAG | 240 | |
| DB | 181 | CCCATGCGAGATGGGAAAAATTTATTTACTCGGATCTACAGTCCAAAGACAAATCCCAAG | 240 | |
| QY | 241 | AAATATCCAGTTTGGCTCAATAGAACGCCCTACACGGTTTCACTTATGGGAGAACGAA | 300 | |
| DB | 241 | AAATATCCAGTTTGGCTCAATAGAACGCCCTACACGGTTTCACTTATGGGAGAACGAA | 300 | |
| QY | 301 | TATAAAAAAGCTTGGGAAACTTTCCCAATATGATCGTGAAGGCTATATTTCTGTTTAC | 360 | |
| DB | 301 | TATAAAAAAGCTTGGGAAACTTTCCCAATATGATCGTGAAGGCTATATTTCTGTTTAC | 360 | |
| QY | 361 | CAGGATGTCGTGGCAAGTGGAGCGAAGGTGATTTTGAAGATATACGTCCGACACG | 420 | |
| DB | 361 | CAGGATGTCGTGGCAAGTGGAGCGAAGGTGATTTTGAAGATATACGTCCGACACG | 420 | |
| QY | 421 | TACAGCAAGATATAAAGCAATCGATGAAGATACCGATACCTATGATCGCTTGAATGG | 480 | |
| DB | 421 | TACAGCAAGATATAAAGCAATCGATGAAGATACCGATACCTATGATCGCTTGAATGG | 480 | |
| QY | 481 | TTACAGAAAAATCTCAAAAACTAATAATGGCAAGCCGGCTCTATGGGATTTCTTATCCA | 540 | |
| DB | 481 | TTACAGAAAAATCTCAAAAACTAATAATGGCAAGCCGGCTCTATGGGATTTCTTATCCA | 540 | |
| QY | 541 | GGCTTCTATTCTACCGTGGATTTGGTCAAAACAACCCGAGCTTGAAGGCAAGTCCCCA | 600 | |
| DB | 541 | GGCTTCTATTCTACCGTGGATTTGGTCAAAACAACCCGAGCTTGAAGGCAAGTCCCCA | 600 | |
| QY | 601 | CAGGCTCCCGTAACAGACTGTGTATATCGGCGACCACTTCCACCAATATGGGATTTGTT | 660 | |
| DB | 601 | CAGGCTCCCGTAACAGACTGTGTATATCGGCGACCACTTCCACCAATATGGGATTTGTT | 660 | |
| QY | 661 | CTTCAGGATGCATTTACATTCATGTCCTTGGTGTCCCTCGTCCAAAAACCCATTACA | 720 | |
| DB | 661 | CTTCAGGATGCATTTACATTCATGTCCTTGGTGTCCCTCGTCCAAAAACCCATTACA | 720 | |
| QY | 721 | CCGGATCAATTTAAGGCAAAATTCAGATCAAGAACCGGATAAATATACTTTTGGCA | 780 | |
| DB | 721 | CCGGATCAATTTAAGGCAAAATTCAGATCAAGAACCGGATAAATATACTTTTGGCA | 780 | |
| QY | 781 | GAAGCAGAAACAGCGGGAACTCAAGAAAAAGTATTTTGGTGACTCCGTACAAATTTGG | 840 | |
| DB | 781 | GAAGCAGAAACAGCGGGAACTCAAGAAAAAGTATTTTGGTGACTCCGTACAAATTTGG | 840 | |
| QY | 841 | AATGACTCTGTTAAGCATCCCGACTATGATGATTTTGGAAATCCGGTGTGATCACGAA | 900 | |
| DB | 841 | AATGACTCTGTTAAGCATCCCGACTATGATGATTTTGGAAATCCGGTGTGATCACGAA | 900 | |
| QY | 901 | TCTTTACAGAGGTAAACACGACTGTGATGGTGGTCTGTTTCTTTGACCGGAGAT | 960 | |
| DB | 901 | TCTTTACAGAGGTAAACACGACTGTGATGGTGGTCTGTTTCTTTGACCGGAGAT | 960 | |
| QY | 961 | GCTTATGGAACTTTAAGACTCAATCGATTCAGGATTAAGCAAAAAAACAACCTCG | 1020 | |

RESULT 3
US-10-855-533-11
; Sequence 11, Application US/10855533
; Publication No. US20050019864A1
; GENERAL INFORMATION:

; APPLICANT: HARA, SEIICHI
; APPLICANT: YOKOZAKI, KENZO
; APPLICANT: ABE, ISAO
; APPLICANT: TONOUCHI, NAOTO
; APPLICANT: JOJIMA, YASUOKO
; TITLE OF INVENTION: NOVEL PEPTIDE-FORMING ENZYME GENES
; FILE REFERENCE: 253783USO
; CURRENT APPLICATION NUMBER: US/10/855,533
; CURRENT FILING DATE: 2004-05-28
; PRIOR APPLICATION NUMBER: PCR/JF03/09468
; PRIOR FILING DATE: 2003-07-25
; PRIOR APPLICATION NUMBER: JP 2002-218957
; PRIOR FILING DATE: 2002-07-26
; PRIOR APPLICATION NUMBER: JP 2003-16765
; PRIOR FILING DATE: 2003-01-24
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 11
; LENGTH: 1935
; TYPE: DNA
; ORGANISM: Sphingobacterium sp.
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (61)..(1917)
; OTHER INFORMATION:
US-10-855-533-11

Query Match 100.0%; Score 1935; DB 8; Length 1935;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1935; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

| | | | |
|----|-----|--|-----|
| Qy | 1 | GAACCAAGTCTAAATTAATTTACACCAAGAAAGTCTACTGACCAATTAATATCTGA | 60 |
| Db | 1 | GAACCAAGTCTAAATTAATTTACACCAAGAAAGTCTACTGACCAATTAATATCTGA | 60 |
| Qy | 61 | ATGAAAAATCAATTTCTGCTCTAACTTTAGCGCTTTTAAAGCGCAAGCCAGTTACATGCT | 120 |
| Db | 61 | ATGAAAAATCAATTTCTGCTCTAACTTTAGCGCTTTTAAAGCGCAAGCCAGTTACATGCT | 120 |
| Qy | 121 | CAACAGCTGCGCAGTCGGCTTATGTTAGAGATCAATTAAGAAAGACCGAAGTAGCAATT | 180 |
| Db | 121 | CAACAGCTGCGCAGTCGGCTTATGTTAGAGATCAATTAAGAAAGACCGAAGTAGCAATT | 180 |
| Qy | 181 | CCCATGCGAGATGGAAAAAATTTACTCGCATCTACGTTTCAACCTTATGGCGCAAGACGAA | 240 |
| Db | 181 | CCCATGCGAGATGGAAAAAATTTACTCGCATCTACGTTTCAACCTTATGGCGCAAGACGAA | 240 |
| Qy | 241 | AAATATCCAGTTTGTCTCAATAGAACGCCCTACACGGTTTCAACCTTATGGCGCAAGACGAA | 300 |
| Db | 241 | AAATATCCAGTTTGTCTCAATAGAACGCCCTACACGGTTTCAACCTTATGGCGCAAGACGAA | 300 |
| Qy | 301 | TATAAAAAAGCTTGGGAAACTTTCCCAAATGATGCGTGAAGGCTATATTTTCGTTTAC | 360 |
| Db | 301 | TATAAAAAAGCTTGGGAAACTTTCCCAAATGATGCGTGAAGGCTATATTTTCGTTTAC | 360 |
| Qy | 361 | CAGGATGTCCTGGCAAGTGTGATGAGCAAGTGAATTTTGAAGATATACGTTCCGACCAAG | 420 |
| Db | 361 | CAGGATGTCCTGGCAAGTGTGATGAGCAAGTGAATTTTGAAGATATACGTTCCGACCAAG | 420 |
| Qy | 421 | TACAGCAAGATAAAAAGCAATCGATGAAAGTACGGATACCTATGATGCGCTTGAATGG | 480 |
| Db | 421 | TACAGCAAGATAAAAAGCAATCGATGAAAGTACGGATACCTATGATGCGCTTGAATGG | 480 |
| Qy | 481 | TTACAGAAAAATCTCAAAAACTATAATGGCAAGCCGGCTCTATGGGATTTCTTATCCA | 540 |
| Db | 481 | TTACAGAAAAATCTCAAAAACTATAATGGCAAGCCGGCTCTATGGGATTTCTTATCCA | 540 |
| Qy | 541 | GGCTTCTATTCTACGTCGGATTTGTTCAAAACACACCGGCTTGAAGGAGTCTCCCA | 600 |
| Db | 541 | GGCTTCTATTCTACGTCGGATTTGTTCAAAACACACCGGCTTGAAGGAGTCTCCCA | 600 |
| Qy | 601 | CAGGCTCCCGTAAACAGACTGGTATATCGCGACCGACTTCCACCAATAATGGCGTATTGTTT | 660 |
| Db | 601 | CAGGCTCCCGTAAACAGACTGGTATATCGCGACCGACTTCCACCAATAATGGCGTATTGTTT | 660 |

| | | | |
|----|------|--|------|
| Db | 601 | CAGGCTCCCGTAAACAGACTGGTATATCGCGACCGACTTCCACCAATAATGGCGTATTGTTT | 660 |
| Qy | 661 | CTTCAGGATGCATTTACATTCATCTCAACCTTTGGTGTCCCTCGTCCAAAACCCATTACA | 720 |
| Db | 661 | CTTCAGGATGCATTTACATTCATCTCAACCTTTGGTGTCCCTCGTCCAAAACCCATTACA | 720 |
| Qy | 721 | CCGGATCAATTTAAGGCGCAAAATTCAGATCAAGAAAGCCGATAAATAATACTTTTGGCA | 780 |
| Db | 721 | CCGGATCAATTTAAGGCGCAAAATTCAGATCAAGAAAGCCGATAAATAATACTTTTGGCA | 780 |
| Qy | 781 | GAAGCAGAAACAGCGCGGAACTCAAAAGAAAGTATTTTGTGTGATCTCGTCAATTTTGG | 840 |
| Db | 781 | GAAGCAGAAACAGCGCGGAACTCAAAAGAAAGTATTTTGTGTGATCTCGTCAATTTTGG | 840 |
| Qy | 841 | AATGACCTGTTTAAAGCATCCGACATGATGATTTTGGAAATCGGTGTGATCACGAAT | 900 |
| Db | 841 | AATGACCTGTTTAAAGCATCCGACATGATGATTTTGGAAATCGGTGTGATCACGAAT | 900 |
| Qy | 901 | TCCTTACAGGAGTAAACACAGCTGTGATGTGTGTGGTGTCTTTTGAACGCGGAAGAT | 960 |
| Db | 901 | TCCTTACAGGAGTAAACACAGCTGTGATGTGTGTGGTGTCTTTTGAACGCGGAAGAT | 960 |
| Qy | 961 | GCTTATGGAACATTTAAGACCTCAATTCGATCAGGATATAAGCAAAAAAACAACCTCG | 1020 |
| Db | 961 | GCTTATGGAACATTTAAGACCTCAATTCGATCAGGATATAAGCAAAAAAACAACCTCG | 1020 |
| Qy | 1021 | ATTTTAGTCGCGGACCTTGTGTATCATGCGCGTGGTGTCTGTGAGAGGAACTATTTA | 1080 |
| Db | 1021 | ATTTTAGTCGCGGACCTTGTGTATCATGCGCGTGGTGTCTGTGAGAGGAACTATTTA | 1080 |
| Qy | 1081 | GCTGATATCCAAATTTGAGAAAAAACAAGTATTAATCTTATCAGGAACAATTTGAACAACA | 1140 |
| Db | 1081 | GCTGATATCCAAATTTGAGAAAAAACAAGTATTAATCTTATCAGGAACAATTTGAACAACA | 1140 |
| Qy | 1141 | TTTTTCAAAATTAATTAACCTAAAGAGTGAAGAACTTCGCGCCCTCCGAAGCTAAATTTT | 1200 |
| Db | 1141 | TTTTTCAAAATTAATTAACCTAAAGAGTGAAGAACTTCGCGCCCTCCGAAGCTAAATTTT | 1200 |
| Qy | 1201 | GTTTCAGGCAACAGATGGAACATTTTCAAGTGGCCACCAAAAATTTGATAGAGACA | 1260 |
| Db | 1201 | GTTTCAGGCAACAGATGGAACATTTTCAAGTGGCCACCAAAAATTTGATAGAGACA | 1260 |
| Qy | 1261 | AAAAAACTATCTTCCAACTCAGCGGAACTTCGATTTGACAAAGTTTCAACGTACAGAT | 1320 |
| Db | 1261 | AAAAAACTATCTTCCAACTCAGCGGAACTTCGATTTGACAAAGTTTCAACGTACAGAT | 1320 |
| Qy | 1321 | TCCTGGGATGAATGTAACAGACCTTAATAAACTGTTCGCAATCAAGGTGGGGTAAT | 1380 |
| Db | 1321 | TCCTGGGATGAATGTAACAGACCTTAATAAACTGTTCGCAATCAAGGTGGGGTAAT | 1380 |
| Qy | 1381 | CAAAAACCGAACACGGGAGTATATGATAGATCAACGTTTTCGCGGCTAGTCGCCCTGAT | 1440 |
| Db | 1381 | CAAAAACCGAACACGGGAGTATATGATAGATCAACGTTTTCGCGGCTAGTCGCCCTGAT | 1440 |
| Qy | 1441 | GTCATGTTTATCAAAACGGAACCGTTGACGAGGACCTGACGATAGTAGGCCCCAATCAAA | 1500 |
| Db | 1441 | GTCATGTTTATCAAAACGGAACCGTTGACGAGGACCTGACGATAGTAGGCCCCAATCAAA | 1500 |
| Qy | 1501 | AACCTTCTCAAAGTTTCTTCAACAGGAAACAGACGCGGACTATGTTGTCAAACTGATGAC | 1560 |
| Db | 1501 | AACCTTCTCAAAGTTTCTTCAACAGGAAACAGACGCGGACTATGTTGTCAAACTGATGAC | 1560 |
| Qy | 1561 | GTTTATCCGAATGATGCGAAGTTTATCAAGGAAAAACAATGGTGTGATATCAATGATG | 1620 |
| Db | 1561 | GTTTATCCGAATGATGCGAAGTTTATCAAGGAAAAACAATGGTGTGATATCAATGATG | 1620 |
| Qy | 1621 | GTACGTGTGATGATCATGCGCGGAAATACCGAAATGGTTTCGATTAAGCGCAGGCTTGG | 1680 |
| Db | 1621 | GTACGTGTGATGATCATGCGCGGAAATACCGAAATGGTTTCGATTAAGCGCAGGCTTGG | 1680 |
| Qy | 1681 | ACTCCAGGTATGGTCAAAAAGGTGAATTTTGAATTCGAGAGCTTGGCGCATACCTTCAAA | 1740 |
| Db | 1681 | ACTCCAGGTATGGTCAAAAAGGTGAATTTTGAATTCGAGAGCTTGGCGCATACCTTCAAA | 1740 |


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QY 1741 AAAGGACATCGCATTTATGTTTCAGGTACAAACTCATGTTTCCGCTGCGACAAAGAT 1800
DB 1741 AAAGGACATCGCATTTATGTTTCAGGTACAAACTCATGTTTCCGCTGCGACAAAGAT 1800
QY 1801 CCACAGGTGTTTATAGCACTTATACAGCTACCAAGCTGATTTCCGCAAGCTACCCAA 1860
DB 1801 CCACAGGTGTTTATAGCACTTATACAGCTACCAAGCTGATTTCCGCAAGCTACCCAA 1860
QY 1861 COTATTTTTCAGATGTGAACATGCGACATCATCGAATTTTCTGCTCAAGATTAG 1920
DB 1861 CGTATTTTTCAGATGTGAACATGCGACATCATCGAATTTTCTGCTCAAGATTAG 1920
QY 1921 CAGGTAAATTCGAAA 1935
DB 1921 CAGGTAAATTCGAAA 1935

RESULT 4
US-10-859-405-11
; Sequence 11, Application US/10859405
; Publication No. US200500321541
; GENERAL INFORMATION:
; APPLICANT: YOKOZEKI, KENZO
; APPLICANT: SUZUKI, SONOKO
; APPLICANT: HARA, SEIICHI
; APPLICANT: ABE, ISAO
; TITLE OF INVENTION: METHOD FOR PRODUCING TRIPETIDES AND/OR PEPTIDES LONGER THAN
; FILE REFERENCE: 254070USO
; CURRENT APPLICATION NUMBER: US/10/859,405
; PRIOR FILING DATE: 2004-06-03
; PRIOR APPLICATION NUMBER: US 60/491,547
; PRIOR FILING DATE: 2003-08-01
; PRIOR APPLICATION NUMBER: JP 2002-218958
; PRIOR FILING DATE: 2002-07-26
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 11
; LENGTH: 1935
; TYPE: DNA
; ORGANISM: Sphingobacterium sp.
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (61)..(1917)
US-10-859-405-11

Query Match 100.0%; Score 1935; DB 8; Length 1935;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1935; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 GAAACCAAGTGAAAAATTATAATTTACACCAAGAAATGACTGAAACAAATAATTAATCTGA 60
DB 1 GAAACCAAGTGAAAAATTATAATTTACACCAAGAAATGACTGAAACAAATAATTAATCTGA 60
QY 61 ATGAAAAATACAAATTCGTGCTAACTTTAGCGCTTTTAAGCGCAAGCCAGTTACATGCT 120
DB 61 ATGAAAAATACAAATTCGTGCTAACTTTAGCGCTTTTAAGCGCAAGCCAGTTACATGCT 120
QY 121 CAAACAGCTGCCATCGCTTATCTTAGAGATCATTAATGAAAGACCGAAGTAGCAATTT 180
DB 121 CAAACAGCTGCCATCGCTTATCTTAGAGATCATTAATGAAAGACCGAAGTAGCAATTT 180
QY 181 CCATGCGAGATGGGAAAAAATTTATTTCTGGATCTACAGTCCAAAAAGACAAATCCAAAG 240
DB 181 CCATGCGAGATGGGAAAAAATTTATTTCTGGATCTACAGTCCAAAAAGACAAATCCAAAG 240..
QY 241 AAATATCCAGTTTCTCAATAGAACGCCCTACACGGTTTCACTTTATGGGCAAGAACGAA 300
DB 241 AAATATCCAGTTTCTCAATAGAACGCCCTACACGGTTTCACTTTATGGGCAAGAACGAA 300
QY 301 TATAAAAAAGCTTGGGAAACTTTCCCAAATGATGCGTGAAGGCTATATTTTCGTTTAC 360
DB 301 TATAAAAAAGCTTGGGAAACTTTCCCAAATGATGCGTGAAGGCTATATTTTCGTTTAC 360
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DB 301 TATAAAAAAGCTTGGGAAACTTTCCCAAATGATGCGTGAAGGCTATATTTTCGTTTAC 360
QY 361 CAGGATGTCGTGGCAAGTGGATGAGCGAAGGTGATTTTGAAGATATACGTCCGACACG 420
DB 361 CAGGATGTCGTGGCAAGTGGATGAGCGAAGGTGATTTTGAAGATATACGTCCGACACG 420
QY 421 TACAGCAAGATAAAAAAGCAATCCATGAAAGTACGATACCTATATGATCGCGTTCGAATGG 480
DB 421 TACAGCAAGATAAAAAAGCAATCCATGAAAGTACGATACCTATATGATCGCGTTCGAATGG 480
QY 481 TTACAGAAAAATCTCAAAAACTATATGCGCAAGCGCGCTCTATGGGGATTTTCTTATCCA 540
DB 481 TTACAGAAAAATCTCAAAAACTATATGCGCAAGCGCGCTCTATGGGGATTTTCTTATCCA 540
QY 541 GCGTCTATTTACCGTGGATTTGGTCAAAACACACCCGAGCTTGAAGGCGAGTCTCCCCA 600
DB 541 GCGTCTATTTACCGTGGATTTGGTCAAAACACACCCGAGCTTGAAGGCGAGTCTCCCCA 600
QY 601 CAGGCTCCGTAACAGACTGTTATATCGGCGACGACTTCCACCATTAATGGCGTATTTT 660
DB 601 CAGGCTCCGTAACAGACTGTTATATCGGCGACGACTTCCACCATTAATGGCGTATTTT 660
QY 661 CTTCAGGATGCAATTTTACATTTCAATTTTGGTGTCCCTCGTCCAAAAACCCATTACA 720
DB 661 CTTCAGGATGCAATTTTACATTTCAATTTTGGTGTCCCTCGTCCAAAAACCCATTACA 720
QY 721 CCGGATCAATTTAAGGGCAAAATTCAGATCAAAAGAGCGGATTAATAATACTTTTGTGA 780
DB 721 CCGGATCAATTTAAGGGCAAAATTCAGATCAAAAGAGCGGATTAATAATACTTTTGTGA 780
QY 781 GAAGCAGAAACAGCGCGGAACTCAAGAAAAAGTATTTTGGTGTCTCGTACCTCGTACAAATTTGG 840
DB 781 GAAGCAGAAACAGCGCGGAACTCAAGAAAAAGTATTTTGGTGTCTCGTACCTCGTACAAATTTGG 840
QY 841 AATGACCTGTTTAAAGCATCCGACTATGATGATTTTGGAAATCCGCTGTGATCACGAAT 900
DB 841 AATGACCTGTTTAAAGCATCCGACTATGATGATTTTGGAAATCCGCTGTGATCACGAAT 900
QY 901 TCTTTACAGGAGTAAACACAGCTGTGATGTTGGTGTCTTTTGAACGCGGAAGAT 960
DB 901 TCTTTACAGGAGTAAACACAGCTGTGATGTTGGTGTCTTTTGAACGCGGAAGAT 960
QY 961 GCTTATGGAACATTTAAGACCTACCAATCGATGAGGATTAAGCAAAAAACCACTCG 1020
DB 961 GCTTATGGAACATTTAAGACCTACCAATCGATGAGGATTAAGCAAAAAACCACTCG 1020
QY 1021 ATTTTAGTCCGCGGACCTTTGGTATCATCGCGTTCGTTGCGAGAGGAACTATTTTA 1080
DB 1021 ATTTTAGTCCGCGGACCTTTGGTATCATCGCGTTCGTTGCGAGAGGAACTATTTTA 1080
QY 1081 GGTGATATCCAAATTTGAGAAAAAACCCAGTATTTACTTATCAGGAAACAAATTTGAAACAA 1140
DB 1081 GGTGATATCCAAATTTGAGAAAAAACCCAGTATTTACTTATCAGGAAACAAATTTGAAACAA 1140
QY 1141 TTTTTCAAATATTTACTTAAAGATGAAGAAACCTTCGCGCCCTTCGGAAGCTAAACATTTT 1200
DB 1141 TTTTTCAAATATTTACTTAAAGATGAAGAAACCTTCGCGCCCTTCGGAAGCTAAACATTTT 1200
QY 1201 GTTTCAGGCAAGCAAGTGAACATTTTCGAACAGTCCGACCAAAAAAATGTAGAGACA 1260
DB 1201 GTTTCAGGCAAGCAAGTGAACATTTTCGAACAGTCCGACCAAAAAAATGTAGAGACA 1260
QY 1261 AAAAACTATATCTTCCAACTCAGGGGAAAATTGGATTTGACAAAGTTCAAGCTACAGAT 1320
DB 1261 AAAAACTATATCTTCCAACTCAGGGGAAAATTGGATTTGACAAAGTTCAAGCTACAGAT 1320
QY 1321 TCCTGGGATGAATATGTAAACAGACCTTAATAAACCCTGTTCCGCATCAAGGTGGGTAAAT 1380
DB 1321 TCCTGGGATGAATATGTAAACAGACCTTAATAAACCCTGTTCCGCATCAAGGTGGGTAAAT 1380
QY 1381 CAAACCGAAACAGCGGAGTATATGTTAGATGATCAACGTTTTCGCGGCTAGTCCGCTGAT 1440
DB 1381 CAAACCGAAACAGCGGAGTATATGTTAGATGATCAACGTTTTCGCGGCTAGTCCGCTGAT 1440
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QY 1441 GTCATGGTTTATCAAAACGGAAACCGTTGACGAGGACCTGACGATAGTAGGCCCAATCAAA 1500
| | | | |
Db 1441 GTCATGGTTTATCAAAACGGAAACCGTTGACGAGGACCTGACGATAGTAGGCCCAATCAAA 1500
| | | | |
QY 1501 AACTTTCTCAAAAGTTTCTTCAACAGGAACAGACGGGACTATGTTGTCAAACTGATTGAC 1560
| | | | |
Db 1501 AACTTTCTCAAAAGTTTCTTCAACAGGAACAGACGGGACTATGTTGTCAAACTGATTGAC 1560
| | | | |
QY 1561 GTTTATCCGAATGATGACAGCAAGTTTATCAAGGAAACCAATGGCTGGGATATCAAAATGATG 1620
| | | | |
Db 1561 GTTTATCCGAATGATGACAGCAAGTTTATCAAGGAAACCAATGGCTGGGATATCAAAATGATG 1620
| | | | |
QY 1621 GTACGTGTGAGATCATCGCGGGGAAATACCGAAATGGTTTCGATAAAGCGAGCCCTTG 1680
| | | | |
Db 1621 GTACGTGTGAGATCATCGCGGGGAAATACCGAAATGGTTTCGATAAAGCGAGCCCTTG 1680
| | | | |
QY 1681 ACTCAGGTATGGTGCAGAAAGGTGAATTTGAAATGCCAGAGCTTTCGTCATACCTTTCAA 1740
| | | | |
Db 1681 ACTCAGGTATGGTGCAGAAAGGTGAATTTGAAATGCCAGAGCTTTCGTCATACCTTTCAA 1740
| | | | |
QY 1741 AAAGACATCGCATATGTTTTCAGTACAAACTCATGTTTCCGCTGGCAGAACGAAAT 1800
| | | | |
Db 1741 AAAGACATCGCATATGTTTTCAGTACAAACTCATGTTTCCGCTGGCAGAACGAAAT 1800
| | | | |
QY 1801 CCACAGGTGTTTTAGCACCTTTATACAGCTACCAAGCTGATTTCCGCAAAAGCTACCCAA 1860
| | | | |
Db 1801 CCACAGGTGTTTTAGCACCTTTATACAGCTACCAAGCTGATTTCCGCAAAAGCTACCCAA 1860
| | | | |
QY 1861 CGTATTTTCAGATGTGAACAACTGCAATGCAATGCAATGCAATGCAATGCAATGCAATGCA 1920
| | | | |
Db 1861 CGTATTTTCAGATGTGAACAACTGCAATGCAATGCAATGCAATGCAATGCAATGCAATGCA 1920
| | | | |
QY 1921 CAGTAAATTCGAA 1935
| | | | |
Db 1921 CAGTAAATTCGAA 1935
| | | | |
RESULT 5
US-10-876-673-11
; Sequence 11, Application US/10876673
; Publication No. US20050124035A1
; GENERAL INFORMATION:
; APPLICANT: YOKOZEKI, KENZO
; APPLICANT: OHNO, AYAKO
; APPLICANT: HARA, SEIICHI
; APPLICANT: ABE, ISAO
; TITLE OF INVENTION: METHOD FOR PRODUCING ALPHA-L-ASPARTYL-L-PHENYLALANINE-BETA-ESTER
; TITLE OF INVENTION: AND METHOD FOR PRODUCING
; TITLE OF INVENTION: ALPHA-L-ASPARTYL-L-PHENYLALANINE-ALPHA-METHYL ESTER
; CURRENT APPLICATION NUMBER: US/10/876,673
; CURRENT FILING DATE: 2004-06-28
; PRIOR APPLICATION NUMBER: PCT/JP2004/000620
; PRIOR FILING DATE: 2004-01-23
; PRIOR APPLICATION NUMBER: JP 2003-016764
; PRIOR FILING DATE: 2003-01-24
; PRIOR APPLICATION NUMBER: 2003-07-25
; PRIOR FILING DATE: 2003-08-01
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: Patent in version 3.3
; SEQ ID NO 11
; LENGTH: 1935
; TYPE: DNA
; ORGANISM: Sphingobacterium sp.
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (61)..(1917)
US-10-876-673-11

Query Match 100.0%; Score 1935; DB 9; Length 1935;

Best Local Similarity 100.0%; Pred. No. 0;
Matches 1935; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 GAAACCAAGTCTAAAAATTTATAATTTTACACCAAGAAATGTACTGAACCAAAATTAATTTATCTGA 60
| | | | |
Db 1 GAAACCAAGTCTAAAAATTTATAATTTTACACCAAGAAATGTACTGAACCAAAATTAATTTATCTGA 60
| | | | |
QY 61 ATGAAAAAATCAAAATTTTGGTGTCTAACTTTTACGCGCTTTTAAAGCGCAAGCCAGTTACATGCT 120
| | | | |
Db 61 ATGAAAAAATCAAAATTTTGGTGTCTAACTTTTAAAGCGCAAGCCAGTTACATGCT 120
| | | | |
QY 121 CAAAACAGCTCCGACTCGGCTTATGTTAGAGATCAATTTATGAAAAAGACCGAAGTAGCAATTT 180
| | | | |
Db 121 CAAAACAGCTCCGACTCGGCTTATGTTAGAGATCAATTTATGAAAAAGACCGAAGTAGCAATTT 180
| | | | |
QY 181 CCCATGCGAGATGGGAAAAAATTTATTTACTCGGATCTACAGTCCAAAAAGACAAATCCCAAG 240
| | | | |
Db 181 CCCATGCGAGATGGGAAAAAATTTATTTACTCGGATCTACAGTCCAAAAAGACAAATCCCAAG 240
| | | | |
QY 241 AAATATCCAGTTTGTCTCAATAGAACGCCCTTACACCGGTTTCACTTATGGGCGAGAACGAA 300
| | | | |
Db 241 AAATATCCAGTTTGTCTCAATAGAACGCCCTTACACCGGTTTCACTTATGGGCGAGAACGAA 300
| | | | |
QY 301 TATAAAAAAGCTTTGGGAAACTTTTCCCAAAATGATGCGTGAAGGTATATTTTGGTTTAC 360
| | | | |
Db 301 TATAAAAAAGCTTTGGGAAACTTTTCCCAAAATGATGCGTGAAGGTATATTTTGGTTTAC 360
| | | | |
QY 361 CAGGATGCTCGTGCAGTGGATGAGCGAAGGTGATTTTGAAGATATACGTCGCGACCAAG 420
| | | | |
Db 361 CAGGATGCTCGTGCAGTGGATGAGCGAAGGTGATTTTGAAGATATACGTCGCGACCAAG 420
| | | | |
QY 421 TACAGCAAGATAAAAAAGCAATCGATGAAAGTACGGATACCTATGATGCGCTTGAATGG 480
| | | | |
Db 421 TACAGCAAGATAAAAAAGCAATCGATGAAAGTACGGATACCTATGATGCGCTTGAATGG 480
| | | | |
QY 481 TTACAGAAAAATCTCAAAAAACTATAATGGCAAGCCGCGCTCTATGGAATTTCTATCCA 540
| | | | |
Db 481 TTACAGAAAAATCTCAAAAAACTATAATGGCAAGCCGCGCTCTATGGAATTTCTATCCA 540
| | | | |
QY 541 GGCTTCTATCTACCGTCCGATTTGGTCAAAACACACCCGAGCTTGAAGGCGAGTCTCCCA 600
| | | | |
Db 541 GGCTTCTATCTACCGTCCGATTTGGTCAAAACACACCCGAGCTTGAAGGCGAGTCTCCCA 600
| | | | |
QY 601 CAGGCTCCGTAACAGACTGGTATATCGGCAACCACTTCCACCATATATGGCGTATTGTTT 660
| | | | |
Db 601 CAGGCTCCGTAACAGACTGGTATATCGGCAACCACTTCCACCATATATGGCGTATTGTTT 660
| | | | |
QY 661 CTTCAGGATGCATTTACATTCATGTCACCTTTTGGTGTCTCGTCCAAAAACCCATTA 720
| | | | |
Db 661 CTTCAGGATGCATTTACATTCATGTCACCTTTTGGTGTCTCGTCCAAAAACCCATTA 720
| | | | |
QY 721 CCGGATCAATTTAAGGGCAAAATTCAGATCAAGAGCCGATTAATATAACTTTTTCGA 780
| | | | |
Db 721 CCGGATCAATTTAAGGGCAAAATTCAGATCAAGAGCCGATTAATATAACTTTTTCGA 780
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QY 781 GAACGAGAACAGCGCGGAACTCAAGAAAAATTTTGGTGTCTCGTCAAAATTTTGG 840
| | | | |
Db 781 GAACGAGAACAGCGCGGAACTCAAGAAAAATTTTGGTGTCTCGTCAAAATTTTGG 840
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QY 841 AATGACCTGTTTAAAGCATCCGACTATGATGATTTTGGAAATCGCGTGTGATCAAGAT 900
| | | | |
Db 841 AATGACCTGTTTAAAGCATCCGACTATGATGATTTTGGAAATCGCGTGTGATCAAGAT 900
| | | | |
QY 901 TCTTTACAGGAGGTAAACAGACTGTGATGGTGGTGTCTTTTGAACGCGGAAGAT 960
| | | | |
Db 901 TCTTTACAGGAGGTAAACAGACTGTGATGGTGGTGTCTTTTGAACGCGGAAGAT 960
| | | | |
QY 961 GCTTATGGAACATTTTAAGACCTTACCAATTCGATTTCAGGATAAAGCAAAAAAACAACCTCG 1020
| | | | |
Db 961 GCTTATGGAACATTTTAAGACCTTACCAATTCGATTTCAGGATAAAGCAAAAAAACAACCTCG 1020
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QY 1021 ATTTTAGTCGCGGACCTTGGTATCATGCGCGTTGGGTTCGTGAGAGGAAACTATTATA 1080
| | | | |

Db 1021 ATTTAGTCGGGACCTTGGTATCATGCGGTTGGTTCTGTCGAGGAACTATTTA 1080
QY 1081 GGTGATATCAATTTGAGAAAAAACAGTATTAATATATGAGAACTTTGAAACAACA 1140
Db 1081 GGTGATATCAATTTGAGAAAAAACAGTATTAATATATGAGAACTTTGAAACAACA 1140
QY 1141 TTTTTCATATATACCTAAAGATGAAGAACTTCGCCCTTCGAACTTCAATTTT 1200
Db 1141 TTTTTCATATATACCTAAAGATGAAGAACTTCGCCCTTCGAACTTCAATTTT 1200
QY 1201 GTTTCAGGAGCAACGAATGGAACATTTTCGAACAGTGGCCACCAAAAAATGTAGAGACA 1260
Db 1201 GTTTCAGGAGCAACGAATGGAACATTTTCGAACAGTGGCCACCAAAAAATGTAGAGACA 1260
QY 1261 AAAAACTATATCTTCAACCTCAGGGGAACTTTGGATTGACAAAGTTCAACGTACAGAT 1320
Db 1261 AAAAACTATATCTTCAACCTCAGGGGAACTTTGGATTGACAAAGTTCAACGTACAGAT 1320
QY 1321 TCCTGGGATGAATATGTAAACAGACCTTAATAACCTGTTCCGCATCAAGTGGGTAAAT 1380
Db 1321 TCCTGGGATGAATATGTAAACAGACCTTAATAACCTGTTCCGCATCAAGTGGGTAAAT 1380
QY 1381 CAAAAACGAAACAGGAGTATATGTAGATGATCAACGTTTCGCGCTAGTGCCTCTGAT 1440
Db 1381 CAAAAACGAAACAGGAGTATATGTAGATGATCAACGTTTCGCGCTAGTGCCTCTGAT 1440
QY 1441 GTCATGTTTATCAAAACGAAACCGTTGACGAGGACCTGACGATAGTAGGCCCAATCAA 1500
Db 1441 GTCATGTTTATCAAAACGAAACCGTTGACGAGGACCTGACGATAGTAGGCCCAATCAA 1500
QY 1501 AACTTCTCAAGATTTCTTCAACAGGAAACAGAGCGGAGTATGTTGTCAACTGATTGAC 1560
Db 1501 AACTTCTCAAGATTTCTTCAACAGGAAACAGAGCGGAGTATGTTGTCAACTGATTGAC 1560
QY 1561 GTTTATCCGAATGATGACGAACTTATCAAGGAAACAACTGCTGATATCAATGATG 1620
Db 1561 GTTTATCCGAATGATGACGAACTTATCAAGGAAACAACTGCTGATATCAATGATG 1620
QY 1621 GTACGTGTTGATCATGCGGGGAAATACCGAAATGTTTCGATAAAGCGAGGCTTGG 1680
Db 1621 GTACGTGTTGATCATGCGGGGAAATACCGAAATGTTTCGATAAAGCGAGGCTTGG 1680
QY 1681 ACTCAGGATGTCGAAAGTGAAATTTGAAATGTCAGAGCTTTGGCGATACCTTTCAA 1740
Db 1681 ACTCAGGATGTCGAAAGTGAAATTTGAAATGTCAGAGCTTTGGCGATACCTTTCAA 1740
QY 1741 AAAGCATCGATTTATGTTTCAAGTACAAACTCATGTTTCCGCTGCGAGACGAAT 1800
Db 1741 AAAGCATCGATTTATGTTTCAAGTACAAACTCATGTTTCCGCTGCGAGACGAAT 1800
QY 1801 CCACAGGTGTTTATGACCTTATACAGCTACCAAGCTGATTTCCGCAAGCTACCCAA 1860
Db 1801 CCACAGGTGTTTATGACCTTATACAGCTACCAAGCTGATTTCCGCAAGCTACCCAA 1860
QY 1861 CGTATTTTTCAGGATGTGAACATGTCACATACATCGAATTTTCTCTCAAAGATTAG 1920
Db 1861 CGTATTTTTCAGGATGTGAACATGTCACATACATCGAATTTTCTCTCAAAGATTAG 1920
QY 1921 CAGGTAAATTCGAAA 1935
Db 1921 CAGGTAAATTCGAAA 1935

RESULT 6
US-11-050-829-19
; Sequence 19, Application US/11050829
; Publication NO. US20050176150A1
; GENERAL INFORMATION:
; APPLICANT: KIRA, IKIO
; APPLICANT: YOKOZEKI, KENZO
; APPLICANT: SUZUKI, SONOKO
; APPLICANT: MIHARA, YASUHIRO
; APPLICANT: HIRAO, YOSHINOBI

; TITLE OF INVENTION: MUTANT MICROORGANISM AND METHOD FOR PRODUCING PEPTIDE USING THE
; FILE REFERENCE: SAME
; CURRENT APPLICATION NUMBER: US/11/050,829
; CURRENT FILING DATE: 2005-02-07
; PRIOR APPLICATION NUMBER: US 60/617,060
; PRIOR FILING DATE: 2004-10-12
; PRIOR APPLICATION NUMBER: JP 2004-029844
; PRIOR FILING DATE: 2004-02-05
; NUMBER OF SEQ ID NOS: 22
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 19
; LENGTH: 1935
; TYPE: DNA
; ORGANISM: *Sphingobacterium* sp.
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (61)..(1917)
US-11-050-829-19

Query Match 100.0%; Score 1935; DB 10; Length 1935;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1935; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 GAAACCAAGTGTAAATTTATTAATTTACACCAAGAAATGTACTGAACAAATAATTTCTGA 60
Db 1 GAAACCAAGTGTAAATTTATTAATTTACACCAAGAAATGTACTGAACAAATAATTTCTGA 60
QY 61 ATGAAAAATACAAATTTTCGTGCTAACTTTAGCGCTTTTAAAGCGCAAGCCAGTTACATGCT 120
Db 61 ATGAAAAATACAAATTTTCGTGCTAACTTTAGCGCTTTTAAAGCGCAAGCCAGTTACATGCT 120
QY 121 CAAAACAGCTCGGACTCGGCTTTATGTTAGAGATCAATATGAAAAAGACCGAAGTAGCAATT 180
Db 121 CAAAACAGCTCGGACTCGGCTTTATGTTAGAGATCAATATGAAAAAGACCGAAGTAGCAATT 180
QY 181 CCCATCGAGATGGGAAAAAATTTATTTACTGGGATCTACAGTCCAAAAGACAAATCCAAAG 240
Db 181 CCCATCGAGATGGGAAAAAATTTATTTACTGCGATCTACAGTCCAAAAGACAAATCCAAAG 240
QY 241 AAATATCCAGTTTTCCTCAATAGAACGCCCTTACACGTTTACCTTTATGGGCGAAGCAAG 300
Db 241 AAATATCCAGTTTTCCTCAATAGAACGCCCTTACACGTTTACCTTTATGGGCGAAGCAAG 300
QY 301 TATAAAAAAGCTTGGGAAACCTTTCCCAAAATGATGCGTGAAGGCTATATTTTCGTTTAC 360
Db 301 TATAAAAAAGCTTGGGAAACCTTTCCCAAAATGATGCGTGAAGGCTATATTTTCGTTTAC 360
QY 361 CAGGATGTCGTCGCAAGTGGATGAGCGAAGTGAATTTTGAAGATATACGTCGACCAAG 420
Db 361 CAGGATGTCGTCGCAAGTGGATGAGCGAAGTGAATTTTGAAGATATACGTCGACCAAG 420
QY 421 TACAGCAAGATTAATAAGCAATCGATGAAGTACGGATACCTATGATGCGGCTTGAATGG 480
Db 421 TACAGCAAGATTAATAAGCAATCGATGAAGTACGGATACCTATGATGCGGCTTGAATGG 480
QY 481 TTACAGAAAAATCTCAAAAAACTATATGCGCAAGCCGGGCTCTATGGGATTTCTTATCCA 540
Db 481 TTACAGAAAAATCTCAAAAAACTATATGCGCAAGCCGGGCTCTATGGGATTTCTTATCCA 540
QY 541 GGCTTTCTATTCTACCGTCGGATTGGTCAAAACACACACCGGAGCTTCCACCAATGCGGCTTT 600
Db 541 GGCTTTCTATTCTACCGTCGGATTGGTCAAAACACACACCGGAGCTTCCACCAATGCGGCTTT 600
QY 601 CAGGCTCCGTAACAGACTGGTATATCGGCGACGACTTCCACCAATGCGGCTTATTTT 660
Db 601 CAGGCTCCGTAACAGACTGGTATATCGGCGACGACTTCCACCAATGCGGCTTATTTT 660
QY 661 CTTTCAAGATGCAATTTTACATTTCACTTTCATGTCACCTTTTGGTGTCCCTCGTCCAAAACCCATTACA 720
Db 661 CTTTCAAGATGCAATTTTACATTTCACTTTCATGTCACCTTTTGGTGTCCCTCGTCCAAAACCCATTACA 720
QY 721 CCGGATCAATTTTAAAGGCGCAAAATTCAGATCAAGAAAGCGGATTAATAATAACTTTTTTGTGCA 780

Db 721 CCGGATCAATTTAAGCGCAAAATTCAGATCAAAGACCGATAAATAAATCTTTTTCGA 780
Qy 781 GAAGCAGAAACGCGCGGAACTCAAAGAAAGTATTTTGGTGACTCCGTACAAATTTTGG 840
Db 781 GAAGCAGAAACGCGCGGAACTCAAAGAAAGTATTTTGGTGACTCCGTACAAATTTTGG 840
Qy 841 AATGACCTGTTTAAAGCATCCGACATATGATGATTTTTCGAAATCGCGTGTATCAAGAAT 900
Db 841 AATGACCTGTTTAAAGCATCCGACATATGATGATTTTTCGAAATCGCGTGTATCAAGAAT 900
Qy 901 TCTTTACAGGAGTAAACACAGCTGTGATGTTGGTGGTCTTTTTCACGCGGAAGAT 960
Db 901 TCTTTACAGGAGTAAACACAGCTGTGATGTTGGTGGTCTTTTTCACGCGGAAGAT 960
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Db 961 GCTTATGGAACATTTAAGACCTTACCAATCGATGAGGATTAAGCAAAACAACTCG 1020
Qy 1021 ATTTTATGTCGGGACCTTGGTATCATCGCGTTCGGTTCGTCAGAGGAACTATTTA 1080
Db 1021 ATTTTATGTCGGGACCTTGGTATCATCGCGTTCGGTTCGTCAGAGGAACTATTTA 1080
Qy 1081 GGTGATATCCAATTTGAGAAAAACACAGTATTTCTATCAGGAACTTTGAAACCA 1140
Db 1081 GGTGATATCCAATTTGAGAAAAACACAGTATTTCTATCAGGAACTTTGAAACCA 1140
Qy 1141 TTTTTCAAATATTAAGTAAAGTAAAGAACTTCGCGCCCTTCGAAAGCTAAATTTT 1200
Db 1141 TTTTTCAAATATTAAGTAAAGTAAAGAACTTCGCGCCCTTCGAAAGCTAAATTTT 1200
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Qy 1261 AAAAACTATATCTTCAACCTCAGCGGAACTTTGATTTGACAAAGTTTCAAGCTACAGAT 1320
Db 1261 AAAAACTATATCTTCAACCTCAGCGGAACTTTGATTTGACAAAGTTTCAAGCTACAGAT 1320
Qy 1321 TCCTGGGATGAATATGTAACAGACCTTAATAAACCTGTTTCGCGATCAAGTGGGTAAT 1380
Db 1321 TCCTGGGATGAATATGTAACAGACCTTAATAAACCTGTTTCGCGATCAAGTGGGTAAT 1380
Qy 1381 CAAACCCGACACGCGGATATGATGATGATCAACCTTTTCGCGCTAGTTCGCCCTGAT 1440
Db 1381 CAAACCCGACACGCGGATATGATGATGATCAACCTTTTCGCGCTAGTTCGCCCTGAT 1440
Qy 1441 GTCATGGTTTATCAACCGGAAACCGTTGACGGAGGACCTGACGATAGTAGGCCCAATCAA 1500
Db 1441 GTCATGGTTTATCAACCGGAAACCGTTGACGGAGGACCTGACGATAGTAGGCCCAATCAA 1500
Qy 1501 AACTTTCTCAAAGTTTCTTCAACAGGAAACAGACGCGGACTATGTTGTCAAACCTGATGAC 1560
Db 1501 AACTTTCTCAAAGTTTCTTCAACAGGAAACAGACGCGGACTATGTTGTCAAACCTGATGAC 1560
Qy 1561 GTTTATCCGATGATGACGAGTATCAAGGAAACAACTGGCTGGATATCAAAATGATG 1620
Db 1561 GTTTATCCGATGATGACGAGTATCAAGGAAACAACTGGCTGGATATCAAAATGATG 1620
Qy 1621 GTACGTGGTGGATCATGCGCGGAAATACCGAAATGGTTTCGATTAAGCGCAGCGCTTG 1680
Db 1621 GTACGTGGTGGATCATGCGCGGAAATACCGAAATGGTTTCGATTAAGCGCAGCGCTTG 1680
Qy 1681 ACTCCAGGATGGTTCGAAAGGTAATTTTGAATGCGAGAGCTTTCGCGATACCTTTCAA 1740
Db 1681 ACTCCAGGATGGTTCGAAAGGTAATTTTGAATGCGAGAGCTTTCGCGATACCTTTCAA 1740
Qy 1741 AAAGACATCGCATTTATGGTTTCAGGTACAAACTCATGTTTTCGCTGGCAGAGCAAT 1800
Db 1741 AAAGACATCGCATTTATGGTTTCAGGTACAAACTCATGTTTTCGCTGGCAGAGCAAT 1800
Qy 1801 CCACAGGTGTTTATGACACTTTATACAGCTACCAAGCTGATTTTCGCAAAAGCTACCCAA 1860

Db 1801 CCACAGGTGTTTATGACACTTTATACAGCTACCAAGCTGATTTTCGCAAAAGCTACCCAA 1860
Qy 1861 GGTATTTTTCAGGATGCAACAATGCCACATACATCGAATTTTCTGTCTCAAGATTTAG 1920
Db 1861 GGTATTTTTCAGGATGCAACAATGCCACATACATCGAATTTTCTGTCTCAAGATTTAG 1920
Qy 1921 CAGGTAAATTCGAAA 1935
Db 1921 CAGGTAAATTCGAAA 1935
RESULT 7
US-10-763-179-5
; Sequence 5, Application US/10763179
; Publication No. US20040204577A1
; GENERAL INFORMATION:
; APPLICANT: HARA, SEIICHI
; APPLICANT: YOKOZAKI, KENZO
; APPLICANT: ABE, ISAO
; APPLICANT: TONOUCHI, NAOTO
; APPLICANT: JOJIMA, YASUKO
; TITLE OF INVENTION: NOVEL PEPTIDE-FORMING ENZYME GENES
; FILE REFERENCE: 247848USO
; CURRENT APPLICATION NUMBER: US/10763.179
; CURRENT FILING DATE: 2004-01-26
; PRIOR APPLICATION NUMBER: JP 2003-16765
; PRIOR FILING DATE: 2003-01-24
; PRIOR APPLICATION NUMBER: US 60/491,612
; PRIOR FILING DATE: 2003-08-01
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 5
; LENGTH: 2024
; TYPE: DNA
; ORGANISM: Empedobacter brevis
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (61)..(1908)
; OTHER INFORMATION:
; US-10-763-179-5
Query Match 39.8%; Score 771; DB 8; Length 2024;
Best Local Similarity 65.5%; Pred. No. 7.8e-201;
Matches 1144; Conservative 0; Mismatches 600; Indels 3; Gaps 1;
Qy 125 CAGCTGCCGACTCGGCTTATGTTAGATCAATTAAGAAACCGAAGTAGCAATTTCCA 184
Db 134 CAAAGCAGATTTCTGTTATGTCGCGCAATTTACGAAAAAATAGAACAGTAATTTCCA 193
Qy 185 TCGGAGATGGCAAAAAATTTTACTCGATCTACAGTCCAAAGACAAAAATCCAGAAAT 244
Db 194 TCGCGATGGTACAAAGTTTATACAGCTATTTTACGCCAAAGATTAACAAACAAAT 253
Qy 245 ATCCAGTTTTCCTCAATAGAACGCCCTACACGGTTTTCACCTTATGGGCGAGAACGAATATA 304
Db 254 ATCCCGTTTTCGTTAAATCGTACGCTTATACAGTTTTCGCGCTTATGTTGTAATGAATACA 313
Qy 305 AAAAAGCTTGGGAAAATTTCCCAAAATGATGCGTGAAGGCTATATTTTGGTTTACCGAG 364
Db 314 AGAAATCGTTAGGAAAATTTTCTCAGAAAATGCGCAAGGTTTATTTTGTGTACCAAG 373
Qy 365 ATGTCGCGCAAGTGGATGAGCGAAGTGAATTTTGAAGATATACGTCGACCTATAAATCCTT 424
Db 374 ATGTGAGAGGAAATGGATGAGCGAAGGCTTGAAGATGTTTGAAGATGTTTGAAGATGTTT 433
Qy 425 GCAAAGATAAAAAAGCAATCGATGAAAGTACCGATACCTATGATGCGCTTGAATGGTTAC 484
Db 434 CAAAAGTAAAGGCAATTCGCAAGACACAGATACATTTTGAATACGCTAGAAATGGCTTG 493
Qy 485 AGAAAAATCTCAAAAACTATTAATGGCAAGCGGGCTCTATGGGATTTTCTTCTTCCAGGCT 544
Db 494 CTAAGAACTTGAAGAAATTTACAGAAAAAGCTGGAATTTATGGAATTTTCTGATCTCTGTT 553

545 TCTATTCTCCGTCGATGGTCAAAAACACACCGAGCTTGAAGGAGTCTCCCAAGG 604
554 TTTATTTCGAATAGATTTGGTTAAATTCGCATCCAACTCTAAAGCGCGTTCCGCCAAG 613
605 CTCCTGTAACAGACTGGTATATCGCGAGGACTTCCACCATAATGGCGTATTTCTTC 664
614 CGCCGTTACCAATTTGGTTTGGTGGAGATTTTCATCATATGAGTTTATTTCTTGA 673
665 AGGATGCAATTTCAATTCATCTGCAACCTTTGGTCCCTCGTCCAAACCCATTACACCGG 724
674 ATGATCTCTTCTCATTTATGACTTTTGGTGTAAAGCGTCGCGCAACCAATTTACGCCAG 733
725 ATCAATTTAAGGGCAAAATTCAGATCAAGAGAGCCGATTAATATACTTTTGGCAGAG 784
734 ATAAAGGTCGAAACGTTTGGTGAATATCCAAATAAAGATAATTTATGATTTATGC---AA 790
785 CAGGAACAGCGCGGAACCTCAAGAGAAAGTATTTTGGTGAATCCGTCACAAATTTGGAATG 844
791 GTGGCTCTGTAAGAGTTGAAGATTAATATTTGCAAGATTAATCAAGTTTTCAGATG 850
845 ACCTGTTTAAGCATCCGCACTATGATGATTTTGGAAATCGCGTGTGATCAGAAATTTCT 904
851 ATTTATTTCGCATCCAGATACGATCAATTTTGGCAAGATCGTAATGTTTACCACAT 910
905 TACAGAGGTAAACACAGCTGTGATGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGG 964
911 TAACTAACTGCAACCTGCTGTAATGACGTTTGGAGGTTTGGTGGTGGTGGTGGTGGTGGT 970
965 ATGGAACATTTAAGCACTACCAATCGATGAGGATAAAGCAAAACCAACTCGATTT 1024
971 ACGGCGCTTTTGAACGTAATGAAGCAATTTGAGAAACCAAAATCCGAAAGCAACAAATATTA 1030
1025 TAGTCGCGGACCTTGGTATCATGCGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGG 1084
1031 TGGTGGCGGACCTTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGG 1090
1085 ATATCAATTTGAGAAAAACAGTATTAATCATTACAGAAACAAATTTGAACAACTTT 1144
1091 ATATGCAATTTGATCGAATACAAGTGAGCATTATCAGCAAGAAATAGAAATGGCTTTT 1150
1145 TCAATATTTACCTAAAGATGAAGAACTTCGCCCTTCCGAAGCTAACTTTTGGTT 1204
1151 TTAATTTATTTACCTAAAGATGAAGTAAATTTTAAACCAACCGAGCTCAATTTTATTA 1210
1205 CAGGAGCAACGAATGGAACATTTGCAACAGTGGCCACCAAAATGTAGAGACAAA 1264
1211 CGGATCTAACGAATGAAGAACTTTGATGCTTGGCCACCAAAATGTAAACACAAA 1270
1265 AACTATCTTCAACCTCAGGGGAACTTGGATTTGACAAATTTCAACGTACAGATTCCT 1324
1271 AAATTTATTTGCAACAAATGTTAAATAGCTTTTAAATAAACCAATACAACTACTTT 1330
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1331 TTGAGCAATATTTGAGATCCAAATTTCTCCAGTTCTTTTTCAGGAGGAGTTTGA 1390
1385 ACCGAAACAGGAGTATATGTTAGATGATCAAGTTTTCGCGCTAGTCCCTGTATGTC 1444
1391 CTCGTTCAAGAGAAATATATGTTGATGATCAACGCTTTGCTTCTACTGCTCTGATGTA 1450
1445 TGGTTTATCAACGGAACCTTTGAGGAGGACCTGACGATAGTAGGCCCCCAATCAAAACT 1504
1451 TGGTGTATCAATCTGATTTTGAAGAGATATTAAGCTTCTGCTGCTGTTATCAATC 1510
1505 TTCTCAAGTTTCTTCAACAGAAACAGACCGGAGTATGTTGCTCAAACTGATTTGAGCTTT 1564
1511 ATTTAGTGGTTCTACTACGGGAAACAGAGCTGATTTGTTGTAATAATGATGATGTTT 1570
1565 ATCCGAATGATGAGCAAGTTTCAAGGAAACAAATGCTGGATATCAAGTGGTGTAC 1624
1571 ATCTGAAACACGCAAAATTTAAACAAATTAATGCTGGATATCAAAATTTGATTT 1630
1625 GTGGTGAGATCATGGCGGGAATATCCGAAATGGTTTTCGATAAAGCGGCGCTTGACTC 1684

1631 GTGCAGAAATATGCGCGAAATATAGAAATAGTTTCTTAACCCCGAAGCTATGGTTC 1690
1685 CAGGTATGCTCGAAAGGTGAATTTTGAATGCCAGAGCTTGGCATACCTTCAAAAAAG 1744
1691 CGAATAAGAAACAAATGTACGTACAGATGCCAGATGTTGGACATATATTTAAGAA 1750
1745 GACATCGCAATATGTTTCAAGTACAAAATCAATGTTTCCGTTGGGAGAACCAATTCAC 1804
1751 GACATCGCAATATGTTTCAAGTACAAAATCAAGTTCAGAAACAGTTGTTTCTTTAGCAGATCGCAATCCGC 1810
1805 AGGTGTTTATAGCACTTATACAGCTACCAAGCTGATTTCCGAAAGCTACCAACGTA 1864
1811 AACAAATTTATGAATGTTTACGAAGCACTTTAAAGATTTATTTAAACAAACGCAACGAA 1870
1865 TTTTTC 1871
1871 TTTATCA 1877

RESULT 8

US-10-849-814-5
; Sequence 5, Application US/10849814
; Publication No. US20040219631A1
; GENERAL INFORMATION:
; APPLICANT: YOKOZEKI, KENZO
; APPLICANT: SUZUKI, SONOKO
; APPLICANT: HARA, SEIICHI
; APPLICANT: ABE, ISAO
; TITLE OF INVENTION: METHOD FOR PRODUCING TRIPEPTIDES AND/OR PEPTIDES LONGER THAN TRI-
; FILE REFERENCE: 252308USOCONT
; CURRENT APPLICATION NUMBER: US/10/849,814
; CURRENT FILING DATE: 2004-05-21
; PRIOR APPLICATION NUMBER: PCT/JP03/09466
; PRIOR FILING DATE: 2003-07-25
; PRIOR APPLICATION NUMBER: JP 2002-218958
; PRIOR FILING DATE: 2002-07-26
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 5
; LENGTH: 2024
; TYPE: DNA
; ORGANISM: Empedobacter brevis
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (61)..(1908)
; OTHER INFORMATION:
US-10-849-814-5

Query Match 39.8%; Score 771; DB 8; Length 2024;
Best Local Similarity 65.5%; Pred. No. 7, 8e-201;
Matches 1144; Conservative 0; Mismatches 600; Indels 3; Gaps 1;

125 CAGTGGCGACTCGCTTATGTAGATGATCAATTAAGAAAGCCGAGTACCAATCCCA 184
134 CAAAGCAGATTCCTTATGTGCGCAATTTACGAAATAAGAAAGTAAATTCGA 193
185 TCGAGATGGGAAATTTATTTACTGCGATCTACAGTCCAAAGACAAATCAAGAAAT 244
194 TCGCGATGGTACAAAGTTATTTACAGCTATTTATCAGCAAAAGATTAACAAACAT 253
245 ATCCAGTTTGTCTCAATAGAACCGCTTACACGTTTTCACCTTATGGGAGCAAGCAATATA 304
254 ATCCGTTTGTAAATCGTACGCTTATACAGTTGCGCTTATGTTGTAATGAATACA 313
305 AAAAAGCTTGGAACTTTCCCAAAATGATGCGTGAAGGCTATATTTTGGTTTACCAG 364
314 AGAATCGTAGGAAATTTCTCAAGAAATCGCGAAGGTTTATTTTGTGTACCAAG 373
365 ATGTCGTCGCAAGTGGATGAGCGAGGTTGATTTGAAGATATACGTCGACCAACGTA 424
374 ATGTGAGGAGAAATGGATGAGCGAAGCGAAATTTGAAGATGTTGCACTATAATTCCTT 433

Db 254 ATCCCGTTTGTAAATCGTACGCCCTTATACAGTTGCGCCTTATGTTGTAATGAATACA 313
Qy 305 AAAAAAGCTTGGGAAACTTTTCCCAAATGATGCGTGAAGGCTATATTTTCGTTTACCAGG 364
Db 314 AGAATCGTTAGGAAATTTTCTACAGAAATGCGGAAGTTTATTTTGTATTACCAAG 373
Qy 365 ATGTCGTCGGCAGTGGATGAGCGAAAGGTTGATTTTGAAGATATACGTCGACGACGTACA 424
Db 374 ATGTGAGAGGAAATGATGAGCGAAAGGCTTGTGAAGATGTTGCAACCTATAAAATCCCTT 433
Qy 425 GCAAGATAAAAAGCAATCGATGAAGTACGATACCTATGATGCGCTTGAATGTTTAC 484
Db 434 CAAAAGTAAAAAGGCAATTTGACAAAGCAGATACATTTGATACGCTAGAAATGCGCTG 493
Qy 485 AGAAAAATCTCAAAACTATAATGGCAAGCCGGCTCTATGGGATTTTCCATCCAGGCT 544
Db 494 CTAAGAACTTGAAGAAATACAGMAAAAGCTGGAATTTATGGAATTTGCTATCCTGGTT 553
Qy 545 TCTATTTACCGTCGGAATGGTCAAAAACAACCCGAGCTTGAAGCAGTCTCCCAACAGG 604
Db 554 TTTATTCGAATAGATGTTGGTTAAATTCGCATCCAACTCTAAAAGCCGTTTCGCCACAG 613
Qy 605 CTCCTGTAACAGACTGGTATATCGGCGACGACTTCCACCATAATGCGTATTTCTTTC 664
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Qy 905 TACAGAGGTAATAACAGCTGTGATGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGG 964
Db 911 TAACTAACTGCAACCTGCTGTAATGACGCTTGGAGGTTTGTGATGCAAGAGATGCT 970
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Db 971 ACGGCGCTTTCGAAACGTTAAGCAATTTGAGAAAACAAATCCGAAGCAACAAATATTA 1030
Qy 1025 TAGTCGCGGACCTTGGTATCATGCGGTTGGGTTGCGTCAAGCAAACTATTTAGGTG 1084
Db 1031 TGGTTGCGGACCTTGGTTTCATGTTGTTGGTGGTGGTGGTGGTGGTGGTGGTGGTGG 1090
Qy 1085 ATATCCAAATTTGAGAAAAAACCACTATTAATCAGGAAACAATTTGAACAAACAATTT 1144
Db 1091 ATATGCAATTTGCATCGAATAAAGTGAGCAATTTATCAGCAAGAAATAGAAATGGCTTTT 1150
Qy 1145 TCAATATTTACCTAAAGATGAGGAACTTCGCCCTTCCGAAGCTAAACATTTTGT 1204
Db 1151 TTAATTTTACTTAAAGATAAAGTAAATTTTAAACCAACCGAAGCTCAATTTTATTA 1210
Qy 1205 CAGGCAAGCAACAAATGGAACATTTTCAAGACGTGCGCAAAATTTGAGACAAAAA 1264
Db 1211 CGGGATCTTAACGATGGAACAAATTTGATGCTTGGCCACCAAAATTTAAACAACAAA 1270
Qy 1265 AACTATACTTCCAACTCAGGCGAAACTTGGATTTTGAACAAAGTTTCAACGTCAGATTCCT 1324
Db 1271 AAATTTATTTGCAACAAATGTTAAATAGCTTTTAAATAAACCAATACAACTACTT 1330
Qy 1325 GGGATGAATATGTAACAGACCCCTAATAAATCTGTTCCGATCAAGGTGGGGAATTCAAA 1384

Db 1331 TTGACGAATATGTTGACGATCCAAATTTCTCAGTTCCCTTATTTACAGAGAGTTTTAGAAA 1390
Qy 1385 ACCGAACACGGAGTATATGTTAGATCAACGTTTCCGGCTAGTCGCCCTCGATGTCA 1444
Db 1391 CTCGTTTCAAGAGAATATATGTTGATGATCAACGCTTTGCTTCTACTCTGCTCTGATTA 1450
Qy 1445 TGGTTTATCAACGGAACCGTTTGAAGGAGGACCTGACGATAGTAGGCCCAATCAAAAAT 1504
Db 1451 TGGTGTATCAATCTGATATTTTGAAGAGATATTAACGCTTGGTCTGCTGTTATCAATC 1510
Qy 1505 TTCTCAAGTTTCTTCAACAGCAACAGCGGAGCTATGTTGTCRAAATGATTTGACGTTT 1564
Db 1511 ATTTAGTGGTTTCTACTACGGNAACAGCGCTGATATGTTGTAATAATGATTTGATGTT 1570
Qy 1565 ATCCGAATGATGACGCAAGTTTATCAAGGAAAAACAATGCTGATATCAAAATGATGTTAC 1624
Db 1571 ATCTTGAAAAACACGCCAAAAATTTAATAACAATTAATGCTGATATCAAAATTTGATTC 1630
Qy 1625 GTGGTGAGATCATGCGGGGAAATACCGAAATGTTGATTAAGGGCAGGCTTGACTC 1684
Db 1631 GTGCAGAAATTTATGCGCGGAAAAATATAGAAATAGTTTCTTAACCCGGAAGCTATGGTTC 1690
Qy 1685 CAGGTATGTCGAAAAAGGTGAATTTTGAATGCCAGAGTTGCGCATACCTTCAAAAAAG 1744
Db 1691 CGAATAAAGAAACAATGTAACGTACAGTCCAGATGTTGACATACATTTAAGAAAG 1750
Qy 1745 GACATCGCATTTATGTTTCAAGGTACAAAACTCATGTTTCCGCTGGCAGAACGAAATCCAC 1804
Db 1751 GACATCGCATTTATGTTTCAAGTTTCAAGACAGTTGGTTCCTTTTAGCAGATCGCAATCCG 1810
Qy 1805 AGGTGTTTTTAGCATTATACAGCTACAAAGCTGATTTTCGCAAAAGTACCCAAAGTGA 1864
Db 1811 AACAAATTTATGAATGTTTACGAAGCAACTTCTAAGATTTATTTAAAAACAAGCAACGAA 1870
Qy 1865 TTTTCA 1871
Db 1871 TTTATCA 1877

RESULT 10
US-10-859-405-5
; Sequence 5, Application US/10859405
; Publication No. US20050032154A1
; GENERAL INFORMATION:
; APPLICANT: YOKOZEKI, KENZO
; APPLICANT: SUZUKI, SONOKO
; APPLICANT: HARA, SEIICHI
; APPLICANT: ABE, ISAO
; TITLE OF INVENTION: METHOD FOR PRODUCING TRIPEPTIDES AND/OR PEPTIDES LONGER THAN
; FILE REFERENCE: 254070USO
; CURRENT APPLICATION NUMBER: US/10/859,405
; PRIOR FILING DATE: 2004-05-03
; PRIOR APPLICATION NUMBER: US 60/491,547
; PRIOR FILING DATE: 2003-08-01
; PRIOR APPLICATION NUMBER: JP 2002-218958
; PRIOR FILING DATE: 2002-07-26
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 5
; LENGTH: 2024
; TYPE: DNA
; ORGANISM: Empedobacter brevis
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (61)..(1908)
US-10-859-405-5

Query Match 39.8%; Score 771; DB 8; Length 2024;
Best Local Similarity 65.5%; Pred. No. 7.8e-201;
Matches 1144; Conservative 0; Mismatches 600; Indels 3; Gaps 1;
Qy 125 CAGTCGCGGACTCGGCTTTATGTTAGAGATCATTTATGAAAGAACCCGGAAGTAGCAATTTCCCA 184

Db 134 CAAAAGCAGATTCTGCTTATGTGCGGACAAATTTACGAAAAAATAGAACAAAGTAATCCGA 193
Qy 185 TCGGATCGGAAAAAATTTATTTACTCGGATCTACAGTCCAAAGACCAATCCAGAAAT 244
Db 194 TCGCGATGGTCAAAAGTTATTTACAGCTATTTATACAGCCAAAGATAAAACAAACAAT 253
Qy 245 ATCCAGTTTGTCTCAATAGAACGCCCTACACGGTTTCACTTTATGGCGAGAACGAATATA 304
Db 254 ATCCCGTTTGTAAATCGTACGCCCTTATACAGTTGCGGCTTATGGTGAATGAATACA 313
Qy 305 AAAAAGCTGGGAAACTTTCCCAAAATGATCGTGAAGGCTATATTTTCGTTTACCAGG 364
Db 314 AGAAATCGTTAGGAAATTTCTACAGAAATCGCGAAGGTTTATTTTGTGTTTACCAG 373
Qy 365 ATGTCGTTGGCAAGTGGATGAGGGAAGGTGATTTGAAGATATACGTCCGACACGTACA 424
Db 374 ATGTGAGAGGAAATGGATGAGCGAAGGCGAAATTTGAAGATGTCGACCTATAAAATCCTT 433
Qy 425 GCAAGATAAAAAGCAATCGATGAAAGTACGATACCTATGATGCGCTTGAATGTTTAC 484
Db 434 CAAAAGTAAAGGCAATGACGAAAGCAGATACATTTGATAGCTAGAAATGCGCTTG 493
Qy 485 AGAAAAATCTCAAAACTATATAGCAAAAGCCGGCTCTATGGGATTTCTTATCCAGGCT 544
Db 494 CTAAAAACTTGAAGAAATACACGAAAAAGCTGGAATTTATGGAATTTGCTATCTGTT 553
Qy 545 TCTATTTACCGTCGGATGGTCAAAAACACACCGAGCTTGAAGGAGTCTCCCCACAGG 604
Db 554 TTTATTCGACAAATGAGTTTGGTTAAATTCGCATCCAACTCTAAAGCCGTTTCGCCACA 613
Qy 605 CTCCTGTAACAGACTGGTATATCGCGACGACTCCACCATAATCGCGTATGTTTCTTC 664
Db 614 CGCCCGTTACCAATTTGGTTTGTAGTGACGATTTTCACTAATGAGTTTATTTCTGA 673
Qy 665 AGATGCAATTTACATTCATGTCACCTTTTGGTCTCTGTCCTCAAAACCCCAATTAACAG 724
Db 674 ATGATCTCTTCTCAATTTATGACTTTTGTGTTGTAAGACGTCGCGCAACCAATTAAC 733
Qy 725 ATCAATTTAAGGGCAAAATTCAGATCAAGAACGCGATATAATATACTTTTGTGAGAG 784
Db 734 ATAAAGGTCGAAACGTTTGAATATCCAAATAAAGATAATATAGATTTTATGCT--AA 790
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Db 791 GTGGCTCTGTAAGAGTTGAAGATAAATTTGCAAGATATATCAAGTTTTCATATG 850
Qy 845 ACCTGTTTAAAGCATCCGACTATGATGATTTTGGAAATCGGTTGTCGATCACGAATCTT 904
Db 851 ATTTATTTGCGCATCCAGATTACGATCAATTTTGGCAAGATCGTAATGTTTACCACATT 910
Qy 905 TACAGAGGTAAACACAGCTGTGATGGTGGTGGTGGTCTTTTCAACGCGGAAGATGCTT 964
Db 911 TAACTAACGTCGAACCTGCTGTAATACAGGTTGGAGGTTTTTTTGTATGCAAGATGCT 970
Qy 965 ATGGAACATTTAAGACCTACCAATCGATTGAGGATAAAGCAAAACCAACTCGATT 1024
Db 971 ACGGCGCTTTCGAAACGTATAAGCAATTTGAGAAACAAATCCGAAAGCAAAATATA 1030
Qy 1025 TAGTCGCGGACCTTGGTATCATGGCGTTGGGTTTGGTGCAGAAAGAACTATTATGAGTG 1084
Db 1031 TGGTTTCGCGACCTTGGTTTCAATGGTGGTGGTTTCGTAGCAACGGAAGTACTTTTGGAG 1090
Qy 1085 ATATCCAAATTTGAGAAAAAACCAAGTATTAATTCAGGAACAAATTTGAACAAACATTTT 1144
Db 1091 ATATGCAATTTGCAATCGAATCAAGTGAAGCTTATCAGCAAGAAATAGAAATTCGCTTTT 1150
Qy 1145 TCARATATTACTTAAAGATGAAGAACTTCGCCCTTCCGAAGCTAACATTTTGTGTT 1204
Db 1151 TTAATTTACTTTAAAGATTAAGTAATTTTAAACCAACCGAAGCTACAATTTTATTA 1210
Qy 1205 CAGGACGAACGAATGGAAACATTTTCGAACAGTGGCCACCAAAATGTAGACAAAAA 1264

Db 1211 CGGGATCTAAACGAATGGAAACAAATTTGATGCTTGGCCACCAAAAAATGTAAACAACAAA 1270
Qy 1265 AACTATATCTTCCAACTCAGGGGAACTTTGGATTTGACAAAATTTCAACGTAACAGATTCTT 1324
Db 1271 AAATTTATTTGCAACAAAATGGTAAAAATAGCTTTTAAATAAAAAACCAATACAACTACTTT 1330
Qy 1325 GGGATGAATATGTAAACAGACCCCTAATAAAACCTGTTCCGCATCAAGGTGGGGTAAATCAAA 1384
Db 1331 TTGAGATATGTTCCAGATCCAAATTTCCNGTTTCTTATTCAGAGAGGATTTTAGAAA 1390
Qy 1385 ACCGAACACGGGAGTATATGTAGATCAACAGTTTCCGCGCTAGTCGCCCTGTATGTA 1444
Db 1391 CTCGTTCAAGAGAAATATATGGTCGATGATCAACGCTTTGCTTCTACTCGTCTGATGTTA 1450
Qy 1445 TGGTTTATCAACGGAACCGTTTGAACGAGGACCTGACGATAGTAGGCCCAATCAAAAAT 1504
Db 1451 TGGTGATCAATCTGATATTTTGAACAGAGATATTAACGCTTGTGCTCTGTATCAATC 1510
Qy 1505 TTCTCAAGTTTCTTCAACAGGAACAGACGCGGACTATGTTGTCAAACTGATTTGACGTTT 1564
Db 1511 ATTTAGTGGTTTCTACTAGCGGAACAGACGCTGATTTGTTGTAATAATTTGATGTTT 1570
Qy 1565 ATCCGAATGATGACGCAAGTTTATCAAGGAAAAACAAATCGCTGGATATCAAAATGATGTA 1624
Db 1571 ATCTGAAAAACAGCGCAAAATTTAATAACAAATTAATGGCTGGATATCAAAATTTGATTC 1630
Qy 1625 GTGGTGACATCATGGCGGGGAAATACCGAAATGGTTTCGATTAAGCGGACGGCTTGACTC 1684
Db 1631 GTGCAGAAATTTATGCGCGGAAAAATATAGAAAATAGTTTCTCTAAACCCCGAAGCTATG 1690
Qy 1685 CAGGTATCGTCGAAAAGGTGAATTTGAAATGCGACAGCTTGGCGATACCTTTCAAAAAAG 1744
Db 1691 CGAATAAGAAACAAATGTAACGTACAGATGCCAGATGTTGGACATACATTTAAGAAAG 1750
Qy 1745 GACATCGCAATATGTTTCAGGTACAAAACCTCATGTTTTCCGCTGGCAGAACGAAATCCAC 1804
Db 1751 GACATCGCAATATGATTCAGTTCAAGTTTCAGAACAGTTGGTTTTCTTTTAGCAGATCGCA 1810
Qy 1805 AGGTGTTTTTAGCACCTTATACAGCTACCAAGCTGATTTCCGCAAGAGTACCCAAAGTA 1864
Db 1811 AACAAATTTATGAATGTTTTACGAAGCACTTCTTAAAGATTTATTTAAACCAACGCAAC 1870
Qy 1865 TTTTTC 1871
Db 1871 TTTATCA 1877

RESULT 11

US-10-876-673-5

; Sequence 5, Application US/10876673

; Publication No. US20050124035A1

; GENERAL INFORMATION:

; APPLICANT: YOKOZEKI, KENZO

; APPLICANT: OHNO, AYAOKI

; APPLICANT: HARA, SEIICHI

; APPLICANT: ABE, ISAO

; TITLE OF INVENTION: METHOD FOR PRODUCING ALPHA-L-ASPARTYL-L-PHENYLALANINE-BETA-ESTER

; TITLE OF INVENTION: AND METHOD FOR PRODUCING

; FILE OF INVENTION: ALPHA-L-ASPARTYL-L-PHENYLALANINE-ALPHA-METHYL ESTER

; FILE REFERENCE: 254836USPCT

; CURRENT APPLICATION NUMBER: US/10/876,673

; CURRENT FILING DATE: 2004-06-28

; PRIOR APPLICATION NUMBER: PCT/JP2004/000620

; PRIOR FILING DATE: 2004-01-23

; PRIOR APPLICATION NUMBER: JP 2003-016764

; PRIOR FILING DATE: 2003-01-24

; PRIOR APPLICATION NUMBER: JP 2003-201819

; PRIOR FILING DATE: 2003-07-25

; PRIOR APPLICATION NUMBER: US 60/491,546

; PRIOR FILING DATE: 2003-08-01

; NUMBER OF SEQ ID NOS: 27

; SOFTWARE: PatentIn version 3.3

; SEQ ID NO 5

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; LENGTH: 2024
; TYPE: DNA
; ORGANISM: Empedobacter brevis
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (61)..(1908)
; US-10-876-673-5

Query Match      39.8%; Score 771; DB 9; Length 2024;
Best Local Similarity 65.5%; Pred. No. 7.8e-201;
Matches 1144; Conservative 0; Mismatches 600; Indels 3; Gaps 1;

QY 125 CAGTCCGACCTCGCTTATGAGATGAAAGACCGAGTAGCAATTCCTCA 184
DB 134 CAAAAGCAGATTCTGCTATGTCGCGACATATACGAAATTAAGCAAGTAATTCGGA 193
QY 185 TCCGAGATGGGAAAAATTAATTAATCTCGATCTACAGTCCAAAGACCAATCCAGAAAT 244
DB 194 TCGCGATGGTACAAAGTTATTTACAGCTATTTATCAGCCAAAGATTAACAAACAAAT 253
QY 245 ATCCAGTTTGTCTAATAGAACGCTTACACGCTTTCACCTTATGGCGAGAACGAATATA 304
DB 254 ATCCCGTTTGTAAATCGACGCTTATACAGTTTGGCGCTTATGGTGTAAATGAATACA 313
QY 305 AAAAAAGCTTGGGAAACTTTCCCAAAATGATCGGTGAAGGCTATATTTTCGTTTACCAG 364
DB 314 AGAAATCGTTAGGAAATTTTCTTACAGAAATGCGGAGGTTTATTTTGTTTTACCAG 373
QY 365 ATGTCGTCGCAAGTGGATGAGCGAAGGTGATTTTGAAGATATACGTCGACCACTACA 424
DB 374 ATGTGAGGAAATGATGAGCGAAGGCAATTTGAAGATGTTGACCTATAATTCCTT 433
QY 425 GCAAGATAAAAAGCAATCGATGAAGTACGATACCTATGATGCGTGTGAATGTTTAC 484
DB 434 CAAAAGTAAAGCAATTTGACGAAAGCACAGATACATTTGATACGCTAGAATGGCTTG 493
QY 485 AGAAAAATCTCAAAACTATATGGAAGCGCGGCTCTATGGATTTCTTATCCAGCT 544
DB 494 CTAAGAACTTGAAGAAATTAACAGAAAAAGCTGGAAATTTATGGAATTTGCTATCTCGT 553
QY 545 TCTATTCTACCTCGGATGTCAAACACACCGAGCTTGAAGCGAGTCTCCCAACAGG 604
DB 554 TTTATTCGAATAGTTGGTTTATTTCCGATCCAACTCTAAAGCCGTTTCCGACAG 613
QY 605 CTCCGCTAACAGACTGGTATATCGCGCAGACTTCCACCATTAATGGCGTATGTTTCTTC 664
DB 614 CGCCGCTTACCAATTTGGTTTATGAGTACATTTTATCATTAATGGAGTTTATTTCTTGA 673
QY 665 AGGATGCAATTAATTCATGTCACACTTTTGGTGTCCCTCGTCCAAACCCATTAACCGG 724
DB 674 ATGATCTTTCTCAATTAATGACTTTTGTGTTAAAGCTCGGCAACCAATTAAGCCAG 733
QY 725 ATCAATTTAAGGCAAAATTCAGTCAAGAGCCGATTAATTAATCTTTTTCAGAG 784
DB 734 ATAAAGGTCGAAACGTTTGAATATPCCAAATAAAGATTAATATAGATTTTATGCT--AA 790
QY 785 CAGGAACACGCGGGAACCTCAAGAAAAAGTATTTTGGTGAATTTTGGTGAATTTTGGAAATG 844
DB 791 GTGGCTCTGTAAGAGTTGAAGATTAATAATTTGCAAGATTAATCAAGTTTACATG 850
QY 845 ACCTGTTTAAGCATCCGACTATGATGATTTTGGAAATCGCGGTGATGATCAAGATTCCT 904
DB 851 ATTTATTTGCGCATCCAGATTAAGATCAATTTTGGCAAGATCGTAAATGTTTACCACAT 910
QY 905 TACAGAGTAAACCCAGCTGATGATGTTGTTGGTGTCTTCTTTCGCGGAGATGCTT 964
DB 911 TAACTAACGTCACCTGCTGTAATGACGTTTGGAGGTTTATTTGATGAGAAGATGCT 970
QY 965 ATGGAACATTTAAGACCTTACCATCGATGAGATTAAGCAAAACCAAAACCACTCGATT 1024
DB 971 ACGGCTTTTGAAGCTTAAAGCAATTTGAGAAACAAATTCGGAAGCAACAAATTA 1030
QY 1025 TAGTCGCGGACCTTTGGTATCATGCGGTTGGGTTTGTGCAAGAGAACTATTTAGGTG 1084

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RESULT 12

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US-11-050-829-13
; Sequence 13, Application US/11050829
; Publication No. US20050176150A1
; GENERAL INFORMATION:
; APPLICANT: KIRA, IKUO
; APPLICANT: YOKOZEKI, KENZO
; APPLICANT: SUZUKI, SONOKO
; APPLICANT: MIHARA, YASUHIRO
; APPLICANT: HIRAO, YOSHINORI
; TITLE OF INVENTION: MUTANT MICROORGANISM AND METHOD FOR PRODUCING PEPTIDE USING THE
; TITLE OF INVENTION: SAME
; FILE REFERENCE: 265063US0

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DB 1031 TGGTTCGCGACCTTGGTTTCAATGTTGGTTCGTAGCAAGAGTACTTTTGGAG 1090
QY 1085 ATATCCAAATTTGAGAAAAAACCAGTATTAATCATTATCAGGAACAATTTGAACAACATTTT 1144
DB 1091 ATATGCAATTTGTCATCGAATATCAAGTGAGCATTAATCAGCAAGAAATAGAAATTCCTTTT 1150
QY 1145 TCAATATTAATTAAGATGAAGAAACTTCGCCCTTCGGAAGCTAACTTTTGGTTT 1204
DB 1151 TTAATTAATTAATTAAGATGAAGAAACTTTTAAACCAACCGAAGCTCAATTTTATTA 1210
QY 1205 CAGGCAAGCAACGAATGGAACCAATTCGGAACAGTGGCCACCAAAAAATGTAGAGACAAAA 1264
DB 1211 CGGATCTAAAGATGGAACCAATTTGATGTTGGCCACCAAAAAATGTAAACAACA 1270
QY 1265 AACTATATCTTCAACCTCAGGGGAACTTGGATTTGACAAAAAGTTCAACGTACAGATTCCT 1324
DB 1271 AAATTTATTTGCAACAAATGTAATAATAGCTTTTAAATAAAACCAATACAACTACTT 1330
QY 1325 GGGATGAATATGTAACAGACCTTAATAAACCCTGTTCCGATCAAGTGGGGTAAATCAAA 1384
DB 1331 TTGACGAATATGTTGAGATCCAAATCTCCAGTTCTTATTCAGGAGGAGTTTATAGAAA 1390
QY 1385 ACCGAACACGCGAGTATATGTTAGATGATCAACGTTTCGCGCTAGTCCCTCTGATGCTCA 1444
DB 1391 CTCGTTCAAGAGATATATGTTGATGATCAACGCTTGTCTTCTACTGCTCTGATGTTA 1450
QY 1445 TGGTTTATCAAAACGGAACCGTTTGAAGGAGGACCTGACGATAGTAGGCGCAATCAAAAACT 1504
DB 1451 TGGTGTATCAATCTGATATTTTGACAGAAAGATATTAACGCTTGTCTGTTATCAATC 1510
QY 1505 TTCTCAAAAGTTTCTTCAACAGGACAGAGCGGAGCTATGTTGTCAAACTGATGAGTTT 1564
DB 1511 ATTTAGTGGTTTCTACTACGGGAAACAGACGCTGATTTATGTTGAAAAATTTGATGATGTT 1570
QY 1565 ATCCGAATGATGACGCAAGTTTATCAAGGAAAAAACAATGCTGGATATCAAAATGATGGTAC 1624
DB 1571 ATCTCGAAAAACAGCCCAAAATTTAATAAATAATGCTGGATATCAAAATTTGATTC 1630
QY 1625 GTGTGAGATCATGCGGGGAAATACCGAAATTTGTTTCCGATAAAGCGCAGGCTTGTACTC 1684
DB 1631 GTGCAGAAATTTATGCGCGGAAATATAGAAATAGTTTCTTAACCCCGAAGCTATGGTTT 1690
QY 1685 CAGGTATGTCGAAAGGTTGAATTTTGAATGCGCAGAGCTTGGCATATCTTCAAAAAAG 1744
DB 1691 CCAATTAAGAAACAAATGTAACGTACAGATGCCAGATGTTGGACATATACATTTAAGAAAG 1750
QY 1745 GACATCGCAATTTGTTTCAAGTACAAACTCATGTTTTCGCTGGCAGACCAAGATCCAC 1804
DB 1751 GACATCGCAATTTGTTTCAAGTACAAACTCATGTTTTCGCTGGCAGATCCCAATCCGC 1810
QY 1805 AGGTGTTTATGACACCTTATACAGCTACCAAGCTGATTTCCGCAAGCTACCCCAAGCTA 1864
DB 1811 AACATTTATGATGTTTACGAGCAACTTCTTAAGATTTATTTAAACCAACCAAGCAAG 1870
QY 1865 TTTTTCAT 1871
DB 1871 TTTATCA 1877

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; CURRENT APPLICATION NUMBER: US/11/050,829
; CURRENT FILING DATE: 2005-02-07
; PRIOR APPLICATION NUMBER: US 60/617,060
; PRIOR FILING DATE: 2004-10-12
; PRIOR APPLICATION NUMBER: JP 2004-029844
; PRIOR FILING DATE: 2004-02-05
; NUMBER OF SEQ ID NOS: 22
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 13
; LENGTH: 2024
; TYPE: DNA
; ORGANISM: Empedobacter brevis
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (61)..(1908)
US-11-050-829-13

Query Match      39.8%; Score 771; DB 10; Length 2024;
Best Local Similarity 65.5%; Pred. No. 7.8e-201;
Matches 1144; Conservative 0; Mismatches 600; Indels 3; Gaps 1;

QY 125 CAGCTGCCGACTCGGCTTATGTTAGAGATCATATGAAAGACCGAAGTAGCAATTCCTCA 184
DB 125 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 134 CAAAAGCAGATTCGCTTATGTCGCGCAATATGCAAAATATGAAACAAAGTAATTCGGA 193
DB 134 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 185 TCGGAGATGGGAAAAAATTAATTAATGCGATCTACAGTCCAAAAGACAAATCCAAAGAAAT 244
DB 185 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 194 TCGCGAGTGATCAAAAGTTATTAACAGTATTTATCAGCTATTTATCAGCCAAAAGATAAAACAAAT 253
DB 194 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 245 ATCCAGTTTGTCAATAGAACGCCCTACACGGTTTCACCTTATGGGCGAGAACGAATATA 304
DB 245 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 254 ATCCCGTTTTGTTAAATCGTAGCGCTTATACAGTTTGCCTTATGTTGTTAAATGAATACA 313
DB 254 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 305 AAAAAAGCTTGGAAACTTCCCAAAATGATCGGTGAAGGCTATATTTTCGTTTACCAGG 364
DB 305 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 314 AGAAATCGTTAGGAAATTTTCCTACAGAAATCGCGAAAGTTTATTTTGTTTACCAAG 373
DB 314 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 365 ATGTCGCTGGCAAGTGGATGAGCGAAGGTGATTTTGAAGATATAGTCCGACCAAGTACA 424
DB 365 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 374 ATGTCAGAGGAAATGGATGACGGAAGGGAATTTGAAGATGTTGCACTATAATTCCTT 433
DB 374 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 425 GCAAGATAAAAAAGCAATCGATGAAAGTACGGATACCTATGATCGCTTGAATGGTTAC 484
DB 425 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 434 CAAAAGTAAAGGCAATTTGACGAAAGCACAGATACATTTTCATAGCTAGATGCGCTTG 493
DB 434 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 485 AGAAAAATCTCAAAACTATAATGCGAAAGCCGGCTCTATGGGATTTCTTATCCAGGCT 544
DB 485 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 494 CTAAAAACTTGAAGAAATTAACAGAAAAAGCTGGAATTTATGGAATTTTCGTATCTCGTT 553
DB 494 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 545 TCTATTCTACCGTCGATTTGGTCAAAAACACACCCGAGCTTGAAGGCAGTCTCCCCACAGG 604
DB 545 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 554 TTTATTCGACAAATGATTTGGTTAATTCGATCCAACTTAAGACCGTTTCGCCACAG 613
DB 554 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 605 CTCCGTAACAGACTGGTATATCGCGACGACTTCCACCAATATGGCGTATGTTTCTTC 664
DB 605 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 614 CGCCGTTTACCAATTTGTTTTAGGTGACGATTTTCATCAATATGAGTTTATTTCTTGA 673
DB 614 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 665 AGGATGCAATTCATATGTCACCTTTGGTGTCCCTGTCGTCACAAAACCCATTAACCGG 724
DB 665 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 674 ATGATTTCTTCTCAATTTATGACTTTTTTGGTGTAAAAACGTCGCAACCAATTTAGCCAG 733
DB 674 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 725 ATCAATTTAAGGCGCAAAATTCAGATCAAGAGCGGCAATAATATACTTTTTTGCAGAG 784
DB 725 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 734 ATAAAGTCCGAAAGCTTTTGAATATCCATAAAGATAATTTATAGATTTTATGCG--AA 790
DB 734 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 785 CAGGAACAGCGCGGAACCTCAAGAAAAAGTATTTTGGTGACTCCGTCGCAAAATTTGGAATG 844
DB 785 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 791 GTGGCTCTGTAAGAGAGTTGAAAGATAAATTTTCAAGATAATATCAAGTTTACAAATG 850
DB 791 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 845 ACCTGTTTAAAGATCCGCACTATGATGATTTTGGAAATTCGGGTGATACGAATTTCTT 904
DB 845 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 851 ATTTATTTGCGCATCCAGATTCAGATCAATTTTGGCAAGATCGTAAATGTTTACCACATT 910
DB 851 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
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RESULT 13
US-11-085-576-11
; Sequence 11, Application US/11085576
; Publication No. US20050227325A1

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QY 905 TACAGAGGTAAAAACCACTGTGTGTTGGTGGTTCCTTTGACGCGGAAGATGCTT 964
DB 905 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 911 TAACTAAAGTGAACCTGCTGTATGACGGTTGGAGGTTTTTTTGTGATCGAAGATGCT 970
DB 911 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 965 ATGGAACATTTTAAAGACCTTACCAATCGATGAGGATATAAAGCAAAAAACCACTCGATTT 1024
DB 965 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 971 ACGGCGCTTTCGAAACGATATAAGCAAATTGAGAAACAAAAATCCGAAAGCAACAAATATTA 1030
DB 971 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 1025 TAGTCGCGGACCTTGGTATCATGCGCGTGGTTCGTCGAGAGGAACATTTTAGGTG 1084
DB 1025 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 1031 TGGTTCCCGGACCTTGGTTTCATGTTGGTTCGTAACGAGTACTTTTGGAG 1090
DB 1031 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 1085 ATATCCAAATTTGAGAAAAAAACCACTATTAATCATCAGAAACAAATTTGAAACAAACATTTT 1144
DB 1085 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 1091 ATATGCAATTTGCAATCGAATACAGTGAAGCATTATCAGCAAGAAATAGATTTGCCCTTTT 1150
DB 1091 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 1145 TCAATATTTACTTAAAGATGAAGAAACCTTCGCCCTTCCGAAGCTAACATTTTGTGTTT 1204
DB 1145 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 1151 TTAATTAATTTACTTAAAGATGAAGTAATTTTAAACCAACCGAAGCTACAATTTTATTA 1210
DB 1151 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 1205 CAGGCAACGAAATGGAACATTTTCGAAACAGTGGCCACCAAAAATCTAGAGACAAAA 1264
DB 1205 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 1211 CGGGATCTAACGAATGGAAACAAATTTGATGCTTGGCCACCAAAAATGTAAACACACAA 1270
DB 1211 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 1265 AACTATATCTTCCAACTCAGGGGAAACCTTGGATTTTGACAAAAGTTTCAACGTACAGATTCT 1324
DB 1265 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 1271 AAATTTATTTGCAACAAATGGTAAATAGCTTTTAAATAAACCAATACACACTACTT 1330
DB 1271 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 1325 GGGATGAATATGTAAACAGACCTTAATAAACTGTTCCGCATCAAGGTGGGGTAAATCAAA 1384
DB 1325 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 1331 TTGCAAGATAATGTTGCAGATCCAAATCTCCAGTTCTTATTTAGAGGAGTTTATAGAAA 1390
DB 1331 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 1385 ACCGAAACAGCGAGTATATGTTAGATGATCAACGTTTCGCGCTAGTCCGCTGATGCTCA 1444
DB 1385 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 1391 CTCGTTCAAGAGAAATATATGTCGATGATCAACGCTTTGCTTCTACTCTGCTGATGTTA 1450
DB 1391 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 1445 TGGTTTATCAAAACGGAACCGTTTGACGAGGACCTGACGATAGTAGGCCCAATCAAAAAC 1504
DB 1445 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 1451 TGGTGTATCATCTGATATTTTGAAGAGATATTAACGCTTGTGCTCTGTTATCAATC 1510
DB 1451 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 1505 TTCTCAAAGTTTCTTCAACAGGAAACAGACGCGGACTATGTTGTCAAACTGATTTGACGTTT 1564
DB 1505 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 1511 ATTTAGTGGTTTCTACTACGGGAAACAGACGCTGATTTATGTTGTAATAATTGATTTGATGTTT 1570
DB 1511 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 1565 ATCCGAATGATGACGAGTATCAAGGAAACAAATGCTGCTGATATCAAAATGATGTTAC 1624
DB 1565 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 1571 ATCTGAAAAACACGCCAAAAATTTAATAACAAATTAATGGCTGGATATCAAAAATTTGATTC 1630
DB 1571 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 1625 GTGGTGAATCATGCGGGGAAATACCGAAATGGTTTCGATAAAGCGCAGGCTTGACTC 1684
DB 1625 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 1631 GTGCAAGAAATTTATGCGGGAATAATATAGAAATAGTTTCTTAACCCCGAAGCTATGGTTC 1690
DB 1631 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 1685 CAGGTATGGTCAAAAAGGTGAATTTTGAATGCCAGACTGTCGCGCATACCTTTCAAAAAAG 1744
DB 1685 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 1691 CGAATAAAGAAACAAATGTAACGTACACGATGCGCAGATGTTGGACATACATTTAAGAAAG 1750
DB 1691 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 1745 GACATCGATTTATGGTTTCAGGTACAAAACCTCATGTTTCCGCTGCCAGACGAATCCAC 1804
DB 1745 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 1751 GACATCGCATTTATGATTCAGTTTCAAGTTTCAAGTGGTGGTTCCTTTTAGCAGATCGCAATCCGC 1810
DB 1751 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 1805 AGGTGTTTTTAGCACCTTATACAGCTACCAAGCTGATTTCCGCAAGCTACCCAAACCTGA 1864
DB 1805 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 1811 AACAAATTTGAAGTTTACGAGCACTTCTAAGATATTTAAACAAACGCAACGAA 1870
DB 1811 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 1865 TTTTTCAT 1871
DB 1871 TTTATCA 1877
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US-10-763-179-17
; Sequence 17, Application US/10763179
; Publication No. US20040204577A1
; GENERAL INFORMATION:
; APPLICANT: HARA, SEIICHI
; APPLICANT: YOKOZEKI, KENZO
; APPLICANT: ABE, ISAO
; APPLICANT: TONOUCHI, NAOTO
; APPLICANT: JOJIMA, YASUKO
; TITLE OF INVENTION: NOVEL PEPTIDE-FORMING ENZYME GENES
; FILE REFERENCE: 2478480S0
; CURRENT APPLICATION NUMBER: US/10/763,179
; PRIORITY FILING DATE: 2004-01-26
; PRIOR APPLICATION NUMBER: JP 2003-16765
; PRIOR FILING DATE: 2003-01-24
; PRIOR APPLICATION NUMBER: US 60/491,612
; PRIOR FILING DATE: 2003-08-01
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 17
; LENGTH: 1974
; TYPE: DNA
; ORGANISM: Pedobacter heparinus
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (61)..(1935)
; OTHER INFORMATION:
US-10-763-179-17

Query Match 35.9%; Score 694.6; DB 8; Length 1974;
Best Local Similarity 61.7%; Pred. No. 8.2e-180;
Matches 1149; Conservative 0; Mismatches 699; Indels 15; Gaps 2;
QY 79 TGCCTAACCTTAGCGCTTTTAGCGCAAGCCAGTTACATGCTCAAAAGCTGCCAGCTCG 138
DB 82 TCCTTCATTTTCTCTTTATTTTACCAGTCTTCTGCTTCTGCAACAACAGTCCGACTCT 141
QY 139 GCTTATGTTAGAGATCATTATGAAAGACCGAAGTAGCAATTCCTATCGAGATGGGAA 198
DB 142 GCTTATATAGCTCAGACTATACCAATATAGAAAGCTGATCCCTATCGGGATGGCAAT 201
QY 199 AAATTTATTTACTCGCATCTACAGTCCAAAAGACAAATCCAGAAATATCCAGTTTGTCT 258
DB 202 AAGCTATTTACAGCCTTTTACATCCCAAGACAAAGCAAGAGTATCCTTTTATGCTC 261
QY 259 AATGAAAGCCCTACACCGTTTACCTTATGGGCGAGAACGAAATATAAAAGCTTTGGGA 318
DB 262 AACCGTACTCTCTTATACCGTTTTCGCTTATGGCGAAACAAATTAATAAACCAAGCCTTGGC 321
QY 319 AACTTTCCCAATAGATCGGTGAGGCTATATTTTCGTTTACAGGATCGGTGGCAAG 378
DB 322 CCTCTCCGCTCTTTATATAAGAGGCTTTATCTTTGTTATCAGGATGTAAAGGGGCAAA 381
QY 379 TGGATGACGGAAGGTGATTTTGAAGATATACGTCCGACCAAGTACAGC---AAAGATAAA 435
DB 382 TGGATGAGTGAAGGAAATTTGAAGACGTAAAGCGCAAAATAGCCAGCAAGAACGCAAA 441
QY 436 AAAGCAATCGATGAAAGTACCGATACCTTATGATCGCTTGAATGTTTGAAGTACGAAATCTC 495
DB 442 ACGGATATGATGAAAGTCCGATCTTATGATACGATCGACTGGCTGATCAGGAACATT 501
QY 496 AAAAATATATAGCAAGCCGGCTCTATGGGATTTCTATCCAGGCTCTCTTCTTACC 555
DB 502 CCTGGAACAAACCGTAAACCGGTATTTACGGTATCTCATACCCAGGCTTTTATGCTACT 561
QY 556 GTCGGATGGTCAAAACACACCGAGCTTGAAGGAGTCTCCCAACAGGCTCCCGTAAAC 615
DB 562 GCTGCCCTACAGATGCGCATCTCTTTAAAGGAGATATCGCCCAAGGCTCCGGTTACC 621
QY 616 GACTGGTATATCGGCGACGATTCACCATATATGGCGTATTTGTTCTTCAGATGCAATTT 675
DB 622 GACTGGTTTATAGGCGATGATTTTATCAATATGGCACCTTGTCTTTCAGATATCTTT 681

QY 676 ACATTATGTCAACCTTTGGTGTCCGTCCAAACCACTTACACCGGATCAATTTAAG 735
DB 682 AGCTTCTATTATACCTTCGGGGTACCGGAGCTCAACCAATTTACCCCGCAAAAGCTCCA 741
QY 736 GGC AAAAATTTCAGATCAAAAGAACCGGATAAATAATATTAATCTTTTTCGAGAGACGGAACAGCG 795
DB 742 AAACCTTTGATTTCCCGGTTAAAGACAACTACCGTTTTTTTCTTGAACCTGGGCCCTTTA 801
QY 796 CGGNACTCAAAAGAAAGTATTTTGGTGACTCCGCTACAAATTTTGAATGACCTGTTTAAAG 855
DB 802 AAAACATCACCAAAAAATATTTATGGCGATACCATACGATTTCTGGAATGATATCAATCGG 861
QY 856 CATCCCGACTATGATGATTTTGGAAATCGCGTGTGATCAGCAATCTCTTTTACAGAGGTA 915
DB 862 CATACCAATTTATGATGCTTCTGGAAGCCCGTAACATTTACGCCCATTTAATGGTGA 921
QY 916 AAACCAAGCTGATGGTGGTGGTGTCTTTTGAACGCGGAAGATGCTTATGGAAATTT 975
DB 922 AAACCTGCAGTTTGGTATTTGGGGCTTCTTTGATGCAGAAAGACCTTTTACGGTACGCTT 981
QY 976 AAGACCTACCAATCGATTGAGGATAAAGCAAAAAAACAACCTCGATTTTGTTCGCGGA 1035
DB 982 AAAACCTATCAGGCCATCGAAAAAACAATAATCCATCCTCAAAAAACAACCTCGTTATGGGC 1041
QY 1036 CCTTGGTATCATGCGGTTGGGTTTGTGCAGAGGAACATTTTATAGGTGATATCAATTT 1095
DB 1042 CCTGTGATACCATGGTGGCTGGGCAAGAGTACGGGAACGATTTTCGGGGATATTAATTTTC 1101
QY 1096 GAGAAAAAACACAGTATTTACTTTATCAGGAACAAATTTTGAACCAACCAATTTTCAAATPATATAC 1155
DB 1102 GGACAGCCCAACAGTACTTTCATACAGCAAAATGTTGAGTTCCCTTTCTTTATGCAATATAC 1161
QY 1156 CTAAAGATGAAAGAAACTTCGCCCTTCCGAGCTAAATTTTGTTCAGGCGAGCAAC 1215
DB 1162 CTCAAGAGGCAACCGGATGCAAAAAATTCAGAGGCAACATTTTATCACTGGCAGCAAT 1221
QY 1216 GAATGGAACATTTTCGAACAGTGGCCACCAAAAAATGTAGAGAGCAAAAAAACTATATCTTC 1275
DB 1222 GAATGGAAGAAATTTTGTCTCTGGCCACTCAGGATACAGAAAGAAACATTTATACCTG 1281
QY 1276 CAACCTCAGGGGAAACTTTGGAATTTGACAAAGTTTCAACGTACAGATTTCTGGGATGAATAT 1335
DB 1282 CAGCCCAATGCAAACTGAGCTTTGAGAAGGTACAGCGGACCGACAGCTGGGATGAATAT 1341
QY 1336 GTAACAGACCTTAATAAACCTGTTCCGATCAAGGTGGGGTAAATTCAAAAACGGAACAGCG 1395
DB 1342 GTAAAGTATCCCAATTCACCTGTCTTATCAGGATGGCATACAAACAGCAGAACCCCGG 1401
QY 1396 GAGTATATGTAGATGATCAACGTTTCCGGCTAGTCCGCTGATGTCATCGTTTATCA 1455
DB 1402 GAATATATGATCGATGACAGCGTTTTCCTCGCGAGACCGGATGTAAAGGTATTTCCAA 1461
QY 1456 ACGGAACCGTTTGAACGAGGACCTGACGATAGTAGGCCCAATCAAAAACTTTCTCAAAAGTT 1515
DB 1462 ACAGAGCCCTCAGTTCGACCTTACATTTACCGGCCGGTATTTGGCCAAACTGGTGTGA 1521
QY 1516 TCTTCAACAGAAACAGACGCGGACTATGTTGTCAAACTGATGTAGCTTTATCCGAATGAT 1575
DB 1522 TCAACCAACAGGTACCGATGCAATTTATGTGTTGAAAACTGATAGATGTATATCCCGAAGAT 1581
QY 1576 GCAGCAAGTTATCAAGGAAACAA-----ATGGCTGGATATCAATGATGTGA 1623
DB 1582 ACACCAATCTGTACTTAAACCTGAAACCTGATCATTTGGTGGTTACAGATGCTGTGA 1641
QY 1624 CGTGGTGAATCATGGGGGGGAAATACCGAAATGTTTTCGATAAAGGCGAGCCCTTGACT 1683
DB 1642 CGCGCGAGATCATGCGTGGGAATACCGTAAATAGCTTTGAAAAACCGAGCCCTTTGTT 1701
QY 1684 CCAGGTATGTCGAAAAGGTGAATTTTGAATGCGCAGAGTGTGGCATATCCTTCAAAAAA 1743
DB 1702 CCTGGAACAAATTAACAAAGTAAACCTATGCCCTTCGGATGTAGCCCATACCTTTAAAAAA 1761
QY 1744 GGACATCGCATTATGTTTCAGGTACAAAACTCATGTTTTCGCTGGCAGAACGAAATCCA 1803


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Db 1762 GCCACCGCATCATGATCCAGTCCAGATTCATGGTTCCCTCGCCGACCGGAATCCA 1821
Qy 1804 CAGGTGTTTATAGCACCTTTATACAGTACCAAGCTGATTTCCGCAAAAGCTACCCAAAGT 1863
Db 1822 CAGCAGTTTATGACATTTACAGGCGCAACCTCGCGATTTTCAGAAAAGCTACGCATAGG 1881
Qy 1864 ATTTTTCAGGATGTAACCAATGCCACATACATCGAATTTTCTGTCTCTCAAGATTTAGCAG 1923
Db 1882 ATCTTCCAGATGTACACAATGATCTGCAATTTACGGTAAACGTACTGAAACCTTTAAAC 1941
Qy 1924 GTA 1926
Db 1942 GGA 1944

RESULT 15
US-10-855-533-17
; Sequence 17, Application US/10855533
; Publication No. US20050019864A1
; GENERAL INFORMATION:
; APPLICANT: HARA, SEIICHI
; APPLICANT: YOKOZAKI, KENZO
; APPLICANT: ABE, ISAO
; APPLICANT: TONOUCHI, NAOTO
; APPLICANT: JOUJIMA, YASUOKO
; TITLE OF INVENTION: NOVEL PEPTIDE-FORMING ENZYME GENES
; FILE REFERENCE: 253783US0
; CURRENT APPLICATION NUMBER: US/10/855,533
; CURRENT FILING DATE: 2004-05-28
; PRIOR FILING DATE: 2003-07-25
; PRIOR APPLICATION NUMBER: JP 2002-218957
; PRIOR FILING DATE: 2002-07-26
; PRIOR APPLICATION NUMBER: JP 2003-16765
; PRIOR FILING DATE: 2003-01-24
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 17
; LENGTH: 1974
; TYPE: DNA
; ORGANISM: Pedobacter heparinus
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (61)..(1935)
; OTHER INFORMATION:
US-10-855-533-17

Query Match 35.9%; Score 694.6; DB 8; Length 1974;
Best Local Similarity 61.7%; Pred. No. 8.2e-180;
Matches 1149; Conservative 0; Mismatches 699; Indels 15; Gaps 2;

Qy 79 TGCCTAACTTTAGCGCTTTTAAGCGCAAGCCAGTTACATGCTCAACAGCTGCCAGCTCG 138
Db 82 TCCTTCAITTTTCTCTTATTTTACCAGTCTTTCTGCTTCTGCAACAGTCCGACTCT 141
Qy 139 GCTTATGTTAGAGATCAATTATGAAAGACCGAAGTAGCAATTTCCCATTCGAGATGGGAAA 198
Db 142 GCTTATATACGTAGCAACTATACCAATATAGAAAGCTGATCCCTATCGGGATGGCAAT 201
Qy 199 AAATTTATTTACGTGATCTACAGTCCAAAGACAAATCCAAAGAAATATCCAGTTTGTCT 258
Db 202 AAGCTATTTACAGCCATTTACATCCCAAGACAAAGCAAGAGTATCTTTTATGTCTC 261
Qy 259 AATAGAACGCTTACACCGTTTACCTTATGGGAGACGATATATAAAAGCTTTGGGA 318
Db 262 AACCGTACTCTTATACCGTTTTCGCTTATGGCGAATAAATATATAAACAAGCCTTGGC 321
Qy 319 AACTTTTCCCAAAATGATCGTGAAGCTATATTTTGTGTTTACAGAGATGTCGTGGCAAG 378
Db 322 CCTCTCTGCTCTTTATATAAAGAGGCTTTATCTTTGTTTATCAGATGTAAAGGGCAAA 381
Qy 379 TGGATGAGCGAAGGTGATTTTGAAGATATACGTCCGACCAAGTACAGC---AAGATAAA 435
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Db 382 TGGATGAGTGGAGAAAATTTGAAGACGTAAAGCCGCAAAATAGCCAGCAAGAAAACGCAAA 441
Qy 436 AAAGCAATTCGATGAAAGTACCGATACCTATGATGCGCTTTGAATGGTTACAGAAAAATCTC 495
Db 442 ACGGATATTGATGAAAGCTCCGATACTTATGATACGATCGACTGGCTGATCAGGAACATT 501
Qy 496 AAAAATAATATGGAAGAAAGCGGGCTCTATGGAATTTCTATCCAGGCTTCTATTCTACCC 555
Db 502 CCTGAAAACAAACCGGTAAACCGGTATTTACGGTATCTCATACCCAGGCTTTTATGCTACT 561
Qy 556 GTGCGATTTGGTCAAAAACACACCGAGCTTGAAGGCGAGTCTCCACAGGCTCCCGTAACA 615
Db 562 GCTGCCCTACAGATGCGCATCCATCTTTAAAGGCGAGTATGCCAGGCTCCGGTTACC 621
Qy 616 GACTGGTATATCGGCGACGACTTCCACCATTAATGGCGTATTGTTTCTTCAGGATGCATTT 675
Db 622 GACTGGTTTATAGGCGATGATTTTCATCAATGGCACCTTGTTCCTTCGAGATATCTTT 681
Qy 676 ACATTCTATGTCAACCTTTTGGTGTCTCTGTCGCAAAACCATTAACCCGGATCAATTTAAG 735
Db 682 AGCTTCTATTATACCTTCGGGGTACCGGACCTCAACCAATTTACGCCGCAACAAAGTCCA 741
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Db 802 AAAACATCATCCAAAATAATATATGGCGATACCATACGATCTGGAATGATATCAATGCG 861
Qy 856 CATCCGCAATGATGATTTTGGAAATCGCGTGTGATCAGCAATTTCTTTACAGGAGTA 915
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Qy 1096 GAGAAAAAACCAAGTATTTACTTATCAGGAAATTTTGAACCACTTTTCAATATTTAC 1155
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Qy 1156 CTAAAAGATGAAGAAACTTCCGCCCTTCCGAAGCTAAACATTTTGGTTTCAGGCGAGCAAC 1215
Db 1162 CTAAAAGGCGACCGGATGCAAAAATTCGAGGCAACATTTTATCACTGGCGACAT 1221
Qy 1216 GAATGGAACAATTTGGAACAGTGGCCACCAAAAATGTAGAGACAAAACAACTATATCTTC 1275
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Qy 1276 CAACCTCAGGGGAACTTGGATTTGACAAAGTTTCAACGTACAGATTTCTGGGATGAATAT 1335
Db 1282 CAGCCCAATGCAAACTGAGCTTTGAGAAGGTACAGCGGACCCGACAGCTGGGATGAATAT 1341
Qy 1336 GTAACAGACCTTAATAAACCTTTCGCGATCAAGTGGGGTAAATTCAAAACCGGAACACGG 1395
Db 1342 GTAAAGTATCCCAATTTACCTGTCCCTTATCAGGATGGCATAAACAACGAGAACCCGG 1401
Qy 1396 GAGTATATGTTAGATGATCAACAGTTTTCGGGCTAGTCGCCCTGTATGTCTATGTTTATCAA 1455
Db 1402 GAATATATGATCGATGACCAAGGTTTTGCTCGCGACAGCCGATGTAAAGGTTATTTCAA 1461
Qy 1456 ACGGAACGTTGACGAGGACCTGACGATATGATAGGCCCAATCAAAAACCTTTCTCAAGTT 1515
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|----|------|---|------|
| Db | 1462 | ACAGAGCCCTCAGTTCGACCTTACACTTACCGGCCGGTATATGGCCAAACTGGTGGTA | 1521 |
| Qy | 1516 | TCCTCAACAGGAACAGACGCGACTATGTGTCAAACTGATTGACGTTTATCCGGAATGAT | 1575 |
| Db | 1522 | TCAACACAGGTACGGATGCAGATTATGTGGTAAGAACTAGATGTATATCCGGAAGAT | 1581 |
| Qy | 1576 | GCAGCAAGTTATCAAGGAATAACA-----ATGGCTGGATATCAAAATGATGGTA | 1623 |
| Db | 1582 | ACACCAAAATCCTGTACTTAACCTTAAACCTGATCATGGGTGGTTACCAGATGCTGTA | 1641 |
| Qy | 1624 | CGTGTGAGATCATGGCGGGGAAATACCGAATGTGTTTCGATAAAGCGAGGCCCTTGACT | 1683 |
| Db | 1642 | CGCGCGAGATCATCGTGGGAAATACCGTAAATAGCTTTGAAAAACCGAGCCTTTGT | 1701 |
| Qy | 1684 | CCAGGTATGGTCGAAAAAGTGAAATTTGAAATGCCAGACGTTGCGCATACCTTCAAAAAA | 1743 |
| Db | 1702 | CCTGGAACAATTAACAAAGTAACTATGCCCTTCGGATGTAGCCCATACCTTTAAAAAA | 1761 |
| Qy | 1744 | GGACATCGCATTTATGGTTCAGGTACAAAACTCATGGTTTCGGCTGGCAGAACGMAATCCA | 1803 |
| Db | 1762 | GSCCACCAGATCATGATCCAGGTCCAGAAATTCATGGTTCCCTGGCCGACGGGATCCA | 1821 |
| Qy | 1804 | CAGGTGTTTTTAGCACTTATACAGCTACCAAGCTGATTTCCGCAAAAGCTACCCACGT | 1863 |
| Db | 1822 | CAGCAGTTTATGGACATTTACCAGGCCGAACTGGCGATTTCAGAAAAAGCTACGCATAGG | 1881 |
| Qy | 1864 | ATTTTTCAGATGTAACAATGCCACATACATCGAATTTTCTGTCTCAGAGATTAGCAG | 1923 |
| Db | 1882 | ATCTCCACGATGTACACAATGCATCTGCAATTACGGTAAACGTAAGTAAACCTTAAAC | 1941 |
| Qy | 1924 | GTA | 1926 |
| Db | 1942 | GGA | 1944 |

Search completed: January 22, 2006, 03:34:57
Job time : 1590.12 secs